THE FUTURE OF INTERACTIVE ENTERTAINMENT

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EDGE

PLAYSTATION ■ NINTENDO 64 ■ PC ■ DREAMCAST ■ SATURN ■ ARCADE ■ NUMEDIA

SEGA IS DEAD LONG LIVE DREAMCAST

ATLANTA E3 REPORT

FINAL FANTASY VIII

PURE DMA DESIGN

EIGHTH WONDER

AN AUDIENCE WITH GoD

RETURN OF THE MAC

CUE ARCHER MACLEAN

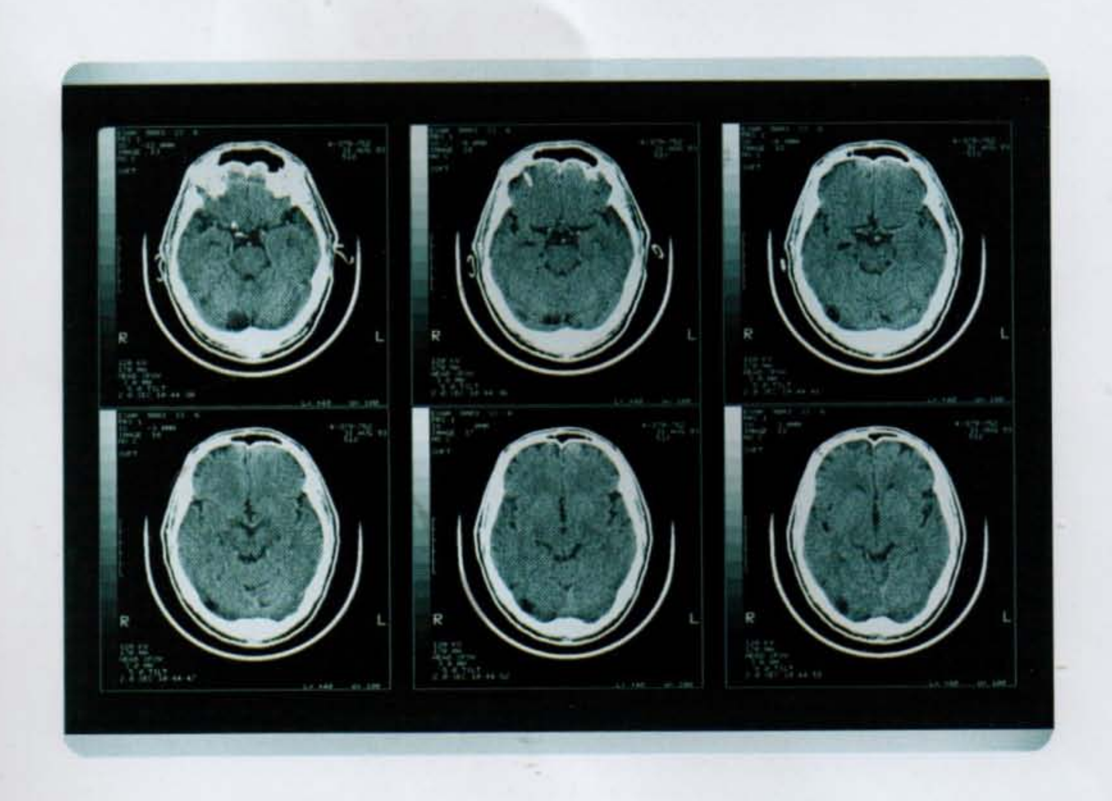
SUPERBIKING IN ITALY













And so the relentless pace of technological change continues unabated. Dreamcast marks the second 'next generation' of videogaming technology to be embraced by **Edge** (or the third should anyone feel that the 3DO and Jaguar are too antiquated to be included in the current generation). The market Sega faces, however, is a very different beast to the one it entered with the Saturn four years ago. It's reassuring to see a suitably more convincing strategy in place this time around.

This preparation for a switch to a new generation of hardware is also an appropriate juncture for handing over the responsibility of **Edge** to a new editor next issue. It's been both a pleasure and a privilege editing the magazine for the past fifty issues, having been part of the title since its original unorthodox positioning as a magazine 'not for everyone'. This is still true today, of course – perhaps even more so now that the 'uneducated' tastes of the mass market are so sharply at odds with **Edge**'s continued pursuit of excellence.

But as the intervening years have seen videogaming slowly develop into an artform, so the magazine has adapted to reflect this. It's perhaps obvious with hindsight, that new technology – however important it may be in facilitating creative ambition – should never be more important than the entertainment itself. Leaving **Edge** with memories of so many well-crafted *and* great-looking games is a positive sign that this belief is still intact.

Perhaps the fundamental key to understanding what makes a great videogame is remembering why we play them in the first place. Is it because they're challenging, fascinating, beautiful, engrossing, exciting... or just plain, simple fun? Undoubtedly, it's all of these things. As for me, I just never grew up...

Jason Brookes

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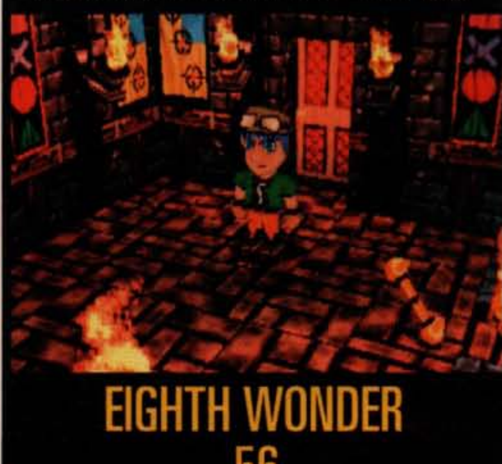

TO BE THIS GOOD TAKES AGES 68



SEGA'S INITIATES THE IMPENDING SUPER CONSOLE ASSAULT WITH DREAMCAST: A POTENT BLEND OF MODEM, MICROSOFT AND MOBILE MEMORY THAT COULD REINVENT HOW PEOPLE PLAY.

EDGE TRAVELS TO TOKYO TO MEET THE ALL-STAR CAST BEHIND THE COMPANY'S GREATEST RETHINK YET

Edge profiles the Rare renegades who defected to Sony. Its PlayStation debut, *Popcorn*, is exclusively revealed to Edge

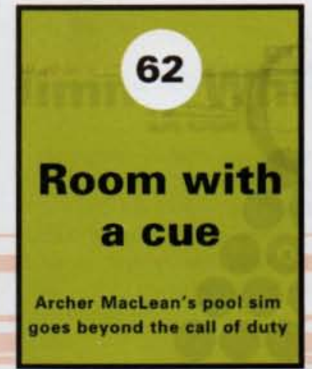


EIGHTH WONDER 56



RETURN OF THE MAC 78

Steve Jobs has made Apple exciting again. But what lies in store for gamesplayers?



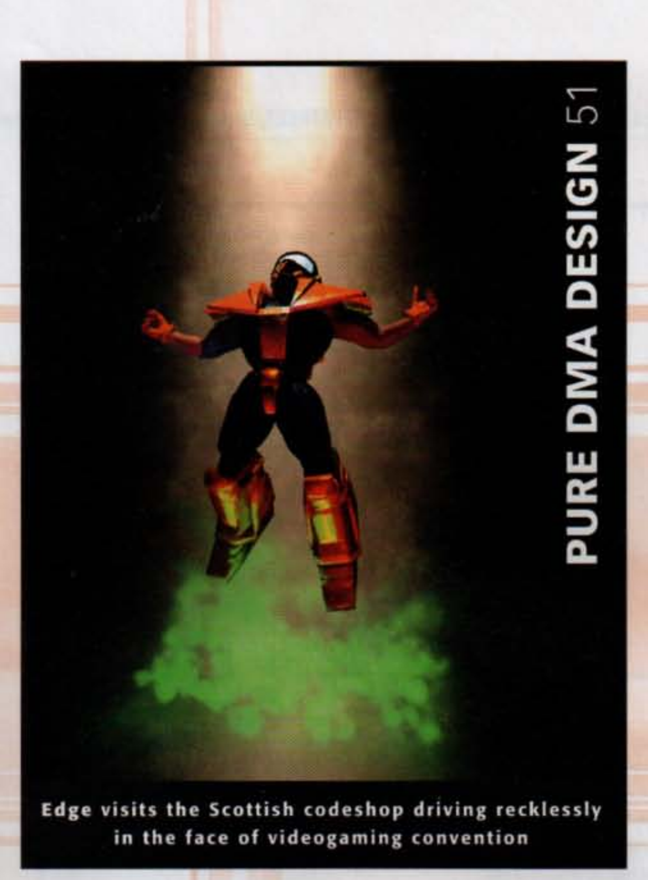
Room with a cue

Archer MacLean's pool sim goes beyond the call of duty

TESTSCREEN

The most honest, accurate videogame reviews in the world



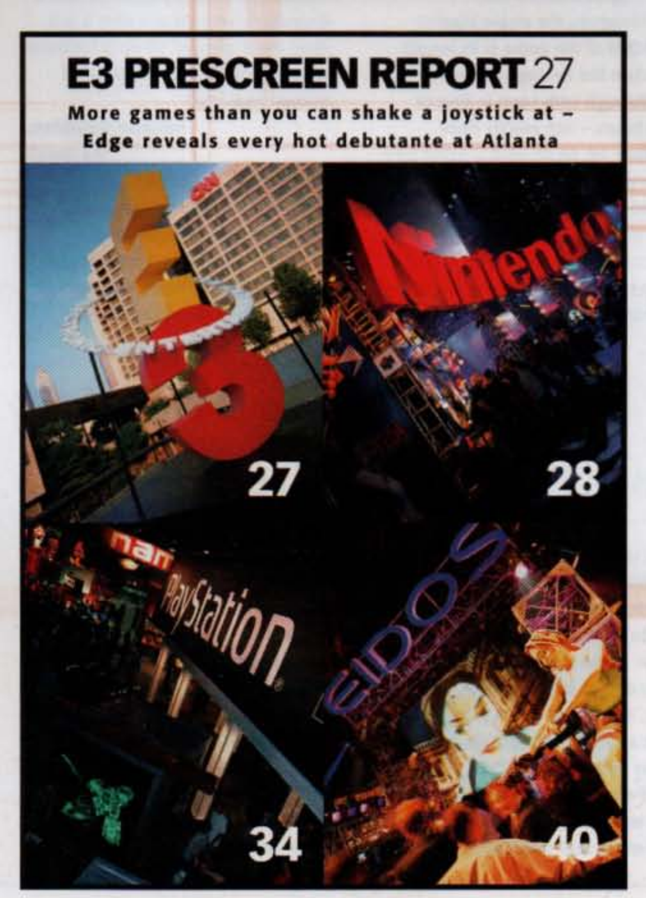


PURE DMA DESIGN 51

Edge visits the Scottish codeshop driving recklessly in the face of videogaming convention

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More games than you can shake a joystick at – Edge reveals every hot debutante at Atlanta





AN AUDIENCE WITH... 22

Mike Wilson and Harry Miller of GoD, the publishers rewriting the rulebook

VIEWPOINT

EXPRESS YOURSELF IN **EDGE** – WRITE TO: LETTERS, **EDGE**, 30 MONMOUTH STREET, BATH, BA1 2BW (email: edge@futurenet.co.uk)

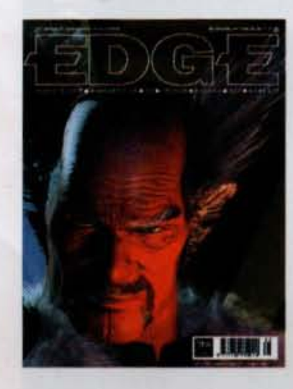
Let me tell you a story. It was the start of the month and I bought a copy of **Edge** (as usual) and (as usual) I read it cover to cover. The 15th rolled along and what did I see but another copy of **Edge**. Different cover, must be a different issue, right? So – like always – I bought it there and then. It was not until I got it home that I realised that it was the same magazine.

I hope you are happy with the extra £3.50 that you made out of me. I assure you that if you try something like this again it will be the last £3.50 that you get out of me, too.

Chris McCreadie, via email

Edge has received several letters of this type and can only apologise to readers who have made the same mistake. The *Tekken* images were so striking that it was decided to use both characters and let readers choose their favourite. Also, the fact **Edge**'s PlayStation supplement was attached to both versions of **E**58 should have been a reasonable clue that they were the same issue.

E58 had two covers featuring *Tekken 3* characters Heihachi and Xiaoyu. Was this a cynical attempt at selling more copies? See Chris McCreadie's letter (left)





Resident Evil was a classic that, despite its (often hilarious) shortcomings, guaranteed staggering sales for a sequel. All Capcom had to do was roughly re-hash the plot, make minor tweaks to the engine, spend some time on higher quality rendering and the money was in the bank. Sadly, that is all it did do. What is even worse is that there has been a uniform lack of criticism from the gaming press for what is an almost immoral lack of effort on Capcom's part.

To be fair, *RE2* has some great set-pieces, but where is this 'much improved' storyline that **Edge** talked about? Do you mean renaming the T-virus as the G-virus? All we have is a series of 'jumpy' moments, pathetic puzzles and endless door-opening sequences.

The new creatures are few, and none inspire the horror that that bloody snake did in the original, whereas the boss looked like a once-impressive monster that had been run over by a combine harvester. The improvements in onscreen zombie numbers appear to be down to a lower polygon count, with even the spiders looking a bit ropier than before.

However, the single biggest criticism of the game is its length. I reckon the average player will be through with Leon in four or five hours – not exactly *Final Fantasy VII*. Much of this game time was spent traversing the police station, as keys are invariably found at the opposite side of the building to the lock. My surprise at finishing it so quickly was only rivalled by my dismay at finding that the second disc was essentially the same thing slightly re-jigged. The one good idea Capcom had (the pursuing big bloke) should have been in the basic game anyway, as it was the only decent innovation on either disc. I think the whole two CD caper was a cynical obfuscation to get away with charging £50.

Perhaps I am being a bit harsh, I did enjoy the game while it lasted, but my overall impression is one of immense disappointment. The basic idea and execution are superb, and married to a genuinely interesting plot with some original ideas, we could have had a real classic. Capcom had two years to do this. If it couldn't have done better it can drop me a line and I'll do it for them – on the cheap with my team of trained monkeys!

Michael Snodden, via email

What is your problem lately? Did **Edge** sign up as a member of the anti-female brigade?

In **E**57 (Out There), you say that women shouldn't advertise racing-sims (nor, very arrogantly put, any other game). Now, in **E**58 you mention that women shouldn't be pictured in console magazines (Out There, again), therefore rubbishing the whole Japanese games magazine industry. And that's not all – on page 58 you review the game *Dead or Alive* which you berate for its animation of the female characters' breasts – something every normal male loves to see in a videogame. After all, videogames are fantasy, even a magazine like **Edge** must understand that.

'You review the game **Dead or Alive** which you berate for its animation of **the female characters' breasts** – something every **normal male loves to see** in a videogame'

I have come to the conclusion that **Edge** either a) hates women, b) are homosexuals or c) has no dick.

Thomas Holzer, Theale

Interpreting Edge's comments as misogynous is like equating 'sexist' with 'sexy'. It's the 20th century, why don't you try living in it.

Now don't get me wrong, there is nothing wrong with *Gran Turismo* on the PlayStation. However, if it was converted to the PC using 3D accelerated graphics, then I think the game could be elevated to a new level.

For example (and I've quite a few!), variable weather conditions, day/night driving dependent on the system clock, increased number of competitors, realistic car damage, engine blow-ups, the list goes on. Multiplayer possibilities open up, too. Just imagining 16 people thrashing their tuned-to-the-max cars around the High Speed ring sends a shiver down my spine.

Then comes Internet play. Buying cars and parts from manufacturers all over the world. Holding race meets where you enter your personalised car into the event of your choice, then sitting back to watch the other races. Trading cars and driving techniques with drivers around the world. What do you think? Is it going to happen? Could I sell my ideas to Sony?

Chizo Ejindu, via email

Judging by the specs of Sega's Dreamcast (see the machine this issue on p68), PlayStation 2 may be all you need to realise all your fantasies. Sadly, its release is likely to be at least 18 months away. As for **Edge**'s contribution to the wish list you've started, *Need for Speed*-style A-to-B road tracks would be a welcome addition, plus more European cars, more varied competitions, further tuning options, and maybe a couple of hidden modes…

Scott Sellers (E58) says the real challenge of 3D is just coming. Mr Sellers was looking at the 'hardware' side of the matter, after all, that's what his work is all about. For me, the real challenge relies on how the virtual space will be used to enhance gameplay, and to answer this basic question: how do you tell a story in 3D space?

I think this crazy race for polygon supremacy has to be stopped (Dreamcast's three million aren't enough?). Alfred Korzybski (the poet) insisted on the divide between the representation of an experience and the experience itself. In gaming words this means that you can fill a scene with huge floating paraphernalia, biological textures, nuclear fire power and ray-traced hairs, but without proper story-telling and emotional content you end up with a crappy shoot 'em up. And, unfortunately, that's what the mass market seems to want.

Manuel Maggio, Italy

I just wanted to agree and disagree with your recent Game on/Game over entries on MAME. Devaluing the timeless appeal of classic coin-ops? Not in my opinion – I'd say one of the best features of MAME is that it gives the player the chance to choose the old arcade games that they remember fondly without having to rely on a selection forced on them by a software company (and all too often comprising of one or two good titles plus a bunch of fillers, the other good titles being held until volume II, III, IV, etc).

As someone involved in computer and console gaming since the ZX80, finding MAME was one of the most rewarding discoveries of recent months. All the memories came flooding back – playing *1943* in the arcade downstairs from Electrocoin's office on Tottenham Court Road, being hypnotised by the slow-paced insanity of *Berzerk*, and just the plain wonderfulness of *Galaga, Marble Madness, Tron, Missile Command* and *Star Wars*.



The 1994 Atari Jaguar, as featured in last issue's Console Nation feature, brought back painful memories for James Glen. See below

Certain records provide the soundtrack to one's teenage years, but these games were just as important to me and I'm very thankful to the MAME team for the chance to play them once again. In an industry that has only recently started realising the relevance of documenting its history, MAME is a very important (not to mention pleasurable) piece of work.

Mat Ricardo, London

While MAME can reproduce some titles to an amazingly high standard, (look out for more on MAME in next month's issue) nothing can emulate the adrenaline-pumping physical sensation of standing at a cabinet in a busy arcade. From struggling to defeat *Tekken 3* on the last credit, to winning a race in *Daytona USA* before a crowd of onlookers, the atmosphere of a real arcade is unbeatable. Sadly, high manufacturing costs and increasingly powerful home systems are causing major problems for the coin-op industry. **Edge** hopes that a solution can be found.

'a girlfriend of mine can't wait for me to finish the **Boeing 737 'Simpson's Jet'** I'm building for her. She doesn't appear **to give a toss** whether or not **I finish *Battlezone*...'**

Your summary of the Atari Jaguar in the article Console Nation (E59) was spot on. This was the machine that should have replaced the SNES and Mega Drive, but was strangely killed by Atari. Was it the console design? No, we've seen worse. Was it the lack of games? Yes, in part. Some stand-out titles were published, (*AvP, Iron Soldier*, anyone?), but the majority were just garbage. Was it Atari itself? Again, yes. I had a Jaguar (still do) which had the sound chip fail. For some odd reason, Atari declared my UK Jaguar to be a US import without even looking at it. So who is to blame for the Jaguar sinking? I'll tell you... it was that crap joypad. I'm still suffering.

James Glen, (still a pissed-off Jaguar owner) via email

Are you prescreening less games than before? Frankly, I find myself wanting to switch to reading another mag because of the imbalance of games reviews in **Edge**. You seem to have a huge article on one or two games, and short reviews on the rest, even cramming about 15 on just five pages. And the way you rate the games doesn't really give us an idea about *why* you rate them. I have spoken to many of my friends who also read **Edge** and they agree. Please, return to the glory days of **Edge** when you used to prescreen many more games. I know it may be a lack of developers giving you shots, but there are a huge amount of games out there, really.

Dominic Giles, London

For every game genuinely worth prescreening or testscreening there are dozens that hardly warrant any coverage at all. Rather than provide blanket coverage, **Edge** continues in its mission to spotlight the winners. Smaller testscreen round-ups are included to paint an accurate portrait of the month's releases across all formats.

With regard to David Walker's comment that gamers' girlfriends 'won't consider your interest to be on a par with the construction of Airfix models,' a girlfriend of mine can't wait for me to finish the Boeing 737 'Simpson's Jet' I'm building for her. She doesn't appear to give a toss whether or not I finish *Battlezone*...

Mr Walker, you would be well advised to do a little research before casting such aspersions on a very challenging hobby. I do enjoy my videogaming (especially late on a Friday night when my alcohol intake has rendered hand-eye co-ordination a little erratic for modelling) but it is merely a diversion from my main hobby. I wouldn't dream of criticising your obvious obsession with videogames; how dare you mock a hobby I regard as an art.

Then again, maybe you are so small-minded that you can only surround yourself with women of a similar nature... Next time you're in WH Smiths check out a copy of 'Fine Scale Modeller' to see what I mean.

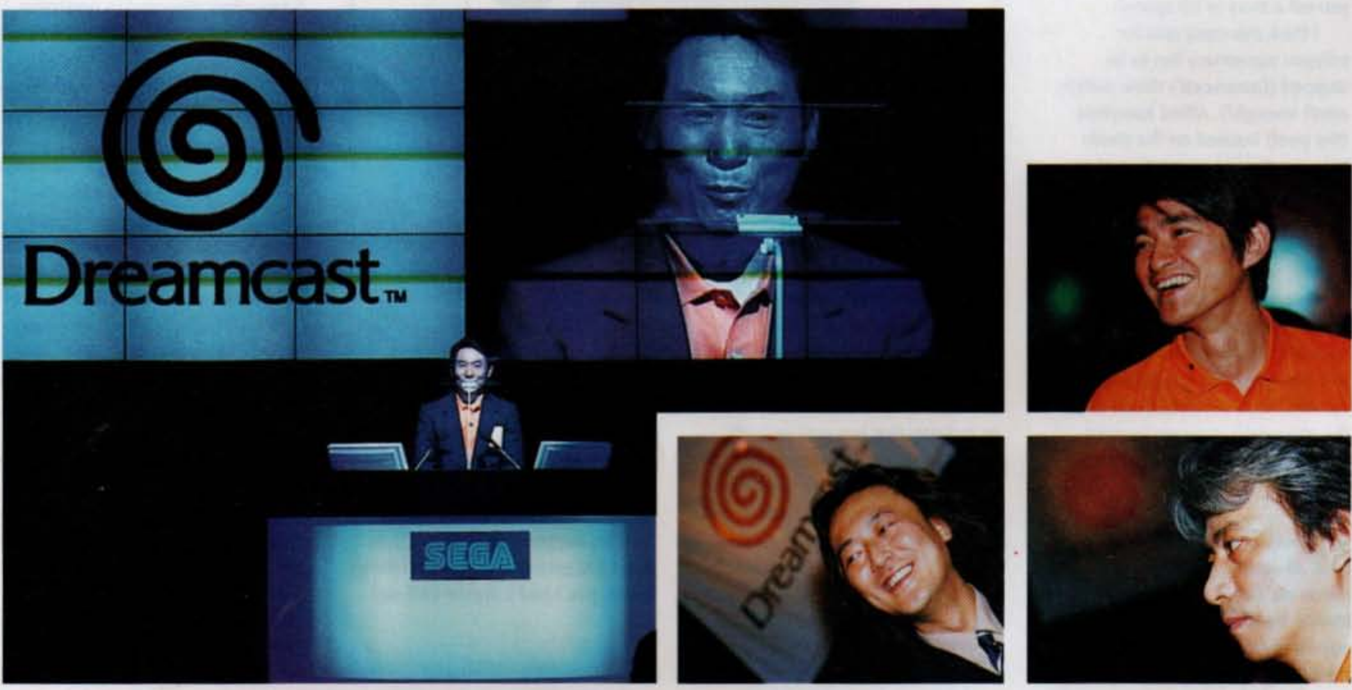
Drewe Manton, via email

Cutting Edge

The latest news from the world of interactive entertainment

DREAMCAST SPEARHEADS SUPER CONSOLE ATTACK

Can an esoteric new brand revive the fortunes of a console giant?



Sega president Shoichiro Irimajiri (main) delivered a eulogy-laden speech for the company's new golden child, Dreamcast. Tetsuya Mizuguchi (of *Sega Rally* fame, top right), Nagoshi-san (*Scud Race*, centre), and Okamura-san (marketing manager, right) were in good humour at the following party



Isao Okawa, chairman of Sega Enterprises Ltd is quietly hopeful that, 'Dreamcast will become the de facto standard' among videogame systems

On the 21 May 1998, Sega Enterprises ended months of speculation by confirming the existence and specification of a successor to its ill-fated Saturn console. Tokyo's sprawling New Otani Hotel made an impressive backdrop to the launch conference and following party, both of which took on a celebratory air.

The initial presentation took place before a 1,000-strong audience of invited press, members of the development community and selected glitterati. The back of the hall was tightly lined. Standing centre stage beneath a vast videowall, Sega president **Shoichiro Irimajiri** set forth the company's plans.

'Today, we proudly announce another milestone in Sega's business,' he began, before claiming that the new console would deliver, 'a revolutionary dream game world for the 21st century.'

He revealed that the new machine's 'Katana' development name has been jettisoned in favour of the more esoteric moniker, Dreamcast. Aside from the deep orange and ethnic logo, chosen to represent the console, the most striking – and important – facet to the launch is that the Sega name was nowhere to be seen. Dreamcast is a new standalone brand, stated by Irimajiri-san to be, 'The system on which new videogames development will flourish.'

To back up this claim, Irimajiri set forth three 'strategic aims' designed to ensure



Dreamcast's compact casing was overshadowed by its even more stylish, understated logo

DREAMCAST SPECS

CPU:	128bit RISC Hitachi SH-4 200MHz
Graphics chip:	PowerVR Second Generation
Sound chip:	Yamaha 32bit RISC, 64 channels
RAM:	16Mb SDRAM
Audio RAM:	2Mb
Cache:	8K instruction/16K data/128K CD-ROM buffer
Modem:	33.6Kbps (V34)
Video Output:	VGA and 640x480 interlaced RF
CD-ROM:	1Gb proprietary format, 12x speed

Dreamcast's success. He said that the console would 'offer the best quality graphics and sound, open up new entertainment possibilities for the 21st century and deliver a user-friendly development environment'.

His alignment of Dreamcast as representing 'the vastness of space and the limitless potential of mankind' was slightly less convincing…

Bill Gates, the man behind Windows CE, Dreamcast's 'user-friendly' operating system, then made a brief appearance on video. His assertion that 'Dreamcast will lead to the broadest selection of games ever seen on a console system' came as little surprise, given the ease with which PC titles can be ported over. But Gates appeared genuinely pleased to be involved in the project, as part of the 'dream cast' of hardware partners.

Spokesmen for Hitachi (CPU), Yamaha (audio, CD-ROM), and NEC/Videologic (co-suppliers of the PowerVR Second Generation graphics card) were wheeled on stage for a photo shoot, prior to the meat of the announcement.

Irimajiri returned to the platform, picked up a Dreamcast controller and proceeded to run through two pieces of live demonstration software. The first, designed by *Sega Rally* creator Tetsuya Mizuguchi featured a motion-captured representation of Irimajiri-san's head (poking fun at *Super Mario 64*'s introduction), while the second, by Sega's AM division star Yu Suzuki was a fly-by of a detailed hillside town. Both demos impressed. (See p72.)

Once the demonstrations and announcements were complete, it was left to the immense videowall to open the party. A sword-wielding samurai paced onscreen, waved his sabre



The Dreamcast launch party lacked nothing in impact, awash with press, guests and drink…







Japan's number two Sumo wrestler was in attendance (top), as was Warp's charismatic Kenji Eno (centre), while Bill Gates payed homage via videotape

about and then 'sliced' the multiple displays in half. To the sound of an a cappella chorus, the screen then trundled apart to reveal another vast chamber, centred by a table laden with food and drink.

Sega had taken care to provide the mainly Japanese media with a plethora of photo opportunities. The country's number two Sumo wrestler, a handful of native pop-music talent, and some of Sega's key development staff attended, but found themselves playing second fiddle to the Dreamcast demonstration software. Eager attendees thronged around the two playable showcases.

Overall, the announcement was deemed a success by those who attended. **Edge** met representatives from NEC who were in ebullient mood evangelising the PowerVR Second Generation chipset, having just received a shot in the arm from its association with a mass-market console. However, with PlayStation 2 looming for 1999, Sega must use its headstart to maximum effect. The creation of some stunning software would seem like a good precautionary measure in the run up to November 20…

Super Model

Sega's **Shoichiro Irimajiri** has broken the silence that has shrouded the company's new coin-op board Naomi. In his interview with **Edge** (see p74-75), he states that, 'The Naomi arcade system is related to Dreamcast, but will be more powerful.'

Many had suspected this to be the case, with Videologic's PowerVR Second Generation chipset providing the horsepower for both Sega's home and arcade systems.

Further investigation by **Edge** has unveiled details of Naomi's true potential. Because of the way PVR2 deals with the screen in terms of tiles, it is possible for Naomi to be a totally scaleable system. Sega's engineers can specify either two, four or sixteen PVR2 boards to run in parallel, with minimal bandwidth problems. Each of the cards handles its half, quarter or sixteenth of the display, providing incredible performance at low cost.

Edge's source also claimed that the minimum screen area controlled by a single board could be a tile of 32x16 pixels in area. However, given that the sixteen board setup would be capable of 15-20 million polygons per second, anything more complex would seem unwarranted.

Sega's arcade division is desperately in need of a cheaper solution for its high-end titles. Model 3 has proved prohibitively expensive for smaller arcade operators, and profits for the AM divisions have fallen in recent times. According to **Edge**'s contact, a sixteen board setup could cost as little as £320 ($500), a figure which would return AM games to much more affordable price levels.

However, it's unclear what configuration of RAM and processor (or possible multiple processors) would be needed to back up the PVR2 boards. Additionally, a low-cost replacement for the ageing ST-V Saturn-based system could be constructed from a twin card set-up.

If Naomi does deliver the performance implied by the sixteen board configuration, Sega's arcade titles will undoubtedly stay on top of the coin-op tree. Any Dreamcast conversions at a later date could prove problematic, however.

Edge awaits official confirmation of Naomi's specifications with interest.

E3 '98: VIDEOGAMING'S SUPERPOWER SUMMIT

Nintendo, Sega, Sony and a host of PC publishers feel the heat at gaming's annual jamboree



Over 40,000 delegates crammed into the Georgia World Congress Centre for E3. A Mario fountain provided brief respite



Those who sat sat through the *Parasite Eve* demos were rewarded with a brief glimpse of *Final Fantasy VIII* (above). Outstanding PlayStation titles were scarce

This year's E3 had almost everything a gaming pundit could realistically ask for. Legions of new games, a new machine for those self-same faithful, a glimpse of Nintendo's colour Game Boy and Project X. Not to mention yet another opportunity for the industry's regular liggers to meet a real life Lara Croft.

Heading to the centre of the main hall provided a good way for E3 virgins to get their bearings. The central avenue was lined with the highest quality real estate, with Nintendo, Sony and Sega all raising imposing frontages. Clustered around these monarchs were the self-proclaimed aristocracy of the industry, including Konami, EA, Eidos, Microsoft and 3Dfx – the scale of their stands befitting their status.

Nintendo, as usual, boasted a daunting presence. The indoor fish pond, with fountains dancing around a stone Mario looked straight out of NCL's finest games. For most attendees, the



Cutting Edge Cuttings

COST CUTTERS

Console prices are falling in America. Both N64s and PlayStation can now be picked up at selected retailers for $129.95 (about £80). The price cuts result from a new PlayStation pack, which includes the Dual Shock analogue controller and sells for $149. Sony in the UK is committed to the two digital controller £129 value pack.

LITTLE RARE JEWEL

Conker 64 was one of the hits of E3, so perhaps it's unsurprising that Rare has already decided to convert the franchise to the Game Boy. *Conker's Pocket Tales* will attempt to translate the 3D license into a top-down, 2D platform/RPG game. Rare is also recruiting programmers to work on the colour Game Boy.

MORE GAMERS, LESS PLAYERS

Consolidation of the games industry continues apace. It now seems certain that GT Interactive will pick up Virgin Interactive for some $130 million. More surprising is the news that Sony may sell Psygnosis. Founder Ian Hetherington's recent departure, and Psygnosis publishing for the N64 adds weight to the speculation.




Nintendo's stand dominated the West hall. Those exhausted by *Zelda* could pass the time at the Pokemon projectile dispenser (right) or by checking out the colour Game Boy (far right)







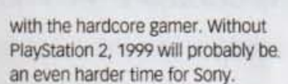



As witnessed at the Tokyo Game Show, *Metal Gear Solid* proved popular with attendees. Though most took a few minutes to appreciate its winning charms

chance to play *Zelda*, *Banjo-Kazooie*, *Conker 64* and a range of promising sports games overshadowed the rest of the show.

A mixed bonus was the opportunity to view the colour Game Boy – behind glass. Most who saw the tiny marvel instantly coveted it, even though all it was running was a trivial graphics demo. Nearby stood a Japanese-style dispenser, that hurled cuddly renditions of Nintendo's little monsters to an enthralled crowd.

Inevitably, with *Gran Turismo*, *Tekken 3* and even *Metal Gear Solid* having already been exposed prior to the show, Sony's stand was less dazzling. Playing *Metal Gear* without negotiating Konami's well-oiled beefcakes attracted many attendees and a rotating *Spyro the Dragon* attracted quite a few punters to Sony's great white hope. But compared to Nintendo's stand, Sony's line-up was weak. Sports games played in chrome metal arenas, and videowall interviews with a virtual Crash Bandicoot betrayed a machine totally in tune with the mass market, yet simultaneously waning



with the hardcore gamer. Without PlayStation 2, 1999 will probably be an even harder time for Sony.

A trip to Sega's stand was hardly more satisfying. The only clue to the Dreamcast connection was the close proximity of VideoLogic's stand, which dispensed T-shirts to the baying crowds. The games of note were *Panzer Dragoon Saga*, *Burning Rangers* and *House of the Dead*. Not a bad swan song for the dying Saturn platform, but, since all the games have previously been played, it was poor pickings for the Sega hardcore.

Interestingly, a daring raid through the pre-show media blockade suggested Dreamcast was at Sega's stand, if only behind fortified doors. **Edge** found the kit (still coded Katana) lying about in boxes as the stand was assembled on Wednesday. For an official unveiling, attendees packed the US launch at the Fox Theatre on Wednesday night. After wolfing down canapés, the crowd, murmuring with expectation, raced through parted curtains for the main event. For fifteen minutes, this involved a US Saturday Night Live comedian making remarkably candid jokes at the industry's (and Sega's) expense. This was followed by a frantic multimedia trip through Sega's heritage. The message was clear. Sega admitted it had made mistakes in the past, but that there was still a company worth believing in. The stage was set for Bernie Stollar and Dreamcast.

For many, however, this was almost an anti-climax. With most of the news having leaked from the Japanese launch six days previously, Stollar found his dramatic pauses for applause somewhat silent. Stollar visibly flagged as the speech progressed. But he made good with a final, unexpected flourish, in the shape of the first Dreamcast game demo. Thirty seconds of video footage from a *Star Fox*-style shoot 'em up, which looked like FMV, left his audience demanding more.

Away from the consoles, PC software – of middling quality – dominated the stands. PC hardware news was less of a feature at E3 than it has been recently, with no equivalent ▶

GoD: TAKE 2

Take 2 Interactive has secured the European publishing and distribution rights to the first ten PC titles from Gathering of Developers (see p22). It has also picked up the distribution rights for the US, where GoD will be responsible for its own publishing and marketing. GTi and Activision were among the rival bidders.

LESS SPICE

Spice World, the PlayStation game from SCEE featuring the infamous girl group of the same name, will be published later this month, despite singer Geri ('Ginger') Halliwell having abandoned the group. It had been 'feared' that the departure of [surely sensible] Spice would see the game canned.

SONY VS MICROSOFT?

At Atlanta's Cable '98 show, Microsoft reportedly demonstrated *Forsaken* running on a set-top box under Windows CE. Microsoft wouldn't name the chipset inside the box, which was powerful enough to sustain a frame rate of 800x600 at 60fps. But Microsoft did recently buy CagEnt, makers of the failed M2 and MX hardware.

THE REVOLUTION CONTINUES

It has just been revealed that AM2's anticipated racing sequel, *Daytona USA 2*, will be compatible with Dreamcast's VMS. At the very least, it will enable gamers to save their arcade preferences. More interestingly, it could enable players to fine-tune their cars and techniques at home and use the results in the arcade.

continued

of, say, the industry-shaking 3Dfx or CD-ROM.

AMD announced its new AMD-K6-2 processor, which it claims offers a four-fold improvement in floating-point operations compared to a Pentium II, with a subsequent benefit for polygonal graphics. 3D acceleration is now ubiquitous, but ironically, that actually drew attention away from 3D chip makers. With excellent mass market chips on display from the likes of Matrox, S3 and Intel, specialists VideoLogic and 3Dfx struggled to garner much interest. 3Dfx in particular seemed less of a force than of late, although to be fair, most PC developers at the show still talked unprompted about doing top-end Glide versions of their games.

This year's E3 also saw the inauguration of regular awards, presented by America's Academy of Interactive Arts and Sciences (AIAS). Rare's standard-setting *GoldenEye* scooped four awards, including Game of the Year, lending the event some early credibility. Other awards included PC Action Game of the Year for *Quake II*, Online Game of the Year for *Ultima Online*, and Outstanding Art/Graphics for *Riven*. Shigeru Miyamoto was also honoured, receiving the AIAS's first entry into its Hall of Fame.

A ticket to E3 '98 revealed the game industry in a temporary truce. There were frighteningly large numbers of limpid games at E3, but there were, arguably, less truly awful games this year. The PC market has failed to capitalise on its recent inroads, but it still offers much to the more affluent hardcore gamer. Sony is holding its market share with a fast-fading console and, while it's now clear that the N64 is unlikely to catch up with the PlayStation's runaway sales, Nintendo will draw some comfort from a far superior line-up of games. Sega's down, but Dreamcast proved it was definitely in the running. Indeed, Sega's new machine might be the hit of the show next year, when E3 returns to Los Angeles, hoping to play host to the industry for a successful five-year run.





Sega made up for its lack of software titles with its usual suite of new arcade machines

PROJECT X-POSED

A stealthy approach by VM Labs might result in a quiet invasion of game consoles into homes

Behind closed doors at E3, VM Labs demonstrated its Project X technology, and also revealed its manufacturing partners and current business plan. Toshiba, Motorola, Activision, Fox Interactive and Psygnosis are among the companies who've confirmed they're working with VM Labs. On a less positive note, the launch of Project X has slipped until Spring 1999.

Project X isn't a games console in the traditional sense. Rather, it's a proprietary processor that replaces the MPEG decoder found in DVD players. Executing some 1.5 billion instructions per second, the Project X chip can easily decode digital video and audio signals, while also delivering a range of 'trick' modes. These are the graphics processing abilities which VM Labs has previously demonstrated to **Edge**. Games will be loaded from the DVD drive and executed by the Project X chip.

VM Labs has revealed that Motorola is its main partner in the development of Project X. As well as taking a minority equity stake in the company, Motorola is committed to manufacturing and selling the fledgling technology. It has also announced an entertainment platform, code-named 'Blackbird', which will be based around Project X.

Manufacturers can include Project X as just another feature, like Dolby Sound. VM Labs claims the costs will be partly recouped through savings on the MPEG decoder. At the very least, the chip will enable DVD makers to create nicer user interfaces. Toshiba and Thomson Consumer Electronics are the first companies to confirm they will incorporate Project X into their High Street range in 1999.

According to VM Labs, DVD players are entering US homes at an unprecedented rate. If a significant number of these eventually ship with Project X chips, then an installed base of several million machines might be achieved within just a few months.

'While DVD has already experienced unprecedented sales growth, Project X interactive DVD will revolutionise home entertainment,' claims Richard Miller, CEO of VM Labs. 'Our goal is to bring a powerful interactive experience to the consumer video market.'

VM Labs' 'Trojan horse' model means that many households could buy a Project X DVD-player without realising they've also bought a games system. Publishers such as Activision, Psygnosis, Berkley Systems, Capcom, Crave and THQ, are already looking at the opportunity to create games for this largely untapped audience.

While VM Labs revealed much about its technology behind the scenes at E3, it inevitably raised just as many questions. Is the strategy cunning enough to succeed where CD-i failed? Will Project X be free to consumers, or will it be, say, an extra $50? If the latter, is it likely that consumers will pay? Expect **Edge** to answer these questions in a forthcoming investigation into this intriguing technology.

continued

POCKET NEO-GEO

As **Edge** went to press, details were released of a new handheld games system from SNK. Dubbed Neo-Geo Pocket, the 16bit unit features a 160x152 pixel display, placing it in Game Boy territory. Most surprising, though, is the news that SNK is planning a Dreamcast adaptor, although the unit is too large to fit in Sega's new joypads.

SUMMER GAMES

Middlesex University will be running a short introductory games programming course this summer from July 27 to 31. The 30-place course will be run on Sony's PlayStation Net Yaroze consoles. Interested individuals with the recommended grounding in C should contact Dr Peter Passmore on 0181 362 6428.

CAPCOM POWERS UP

Capcom's US and Japanese branches have signed deals with NOA and NCL to produce titles for the N64. Although the first title is to be published this autumn, the game hasn't been named by any of the parties concerned. **Edge** wonders if the early demo of *Ghosts 'n' Goblins* it witnessed two years ago could be on its way...

SMALL WONDER FOR N64

As predicted in **E**52, Codemasters is to bring a version of *Micro Machines* to the N64. According to the company, *Micro Machines 64* will, 'take advantage of specific capabilities offered by the N64 hardware'. A Scottish-based internal development team is handling the project, and Codemasters will publish.

MODERN ART

The digital era explodes at the onedotzero2 digital film festival

The recent onedotzero2 digital film festival at London's ICA provided the most tangible affirmation yet that the worlds of digital film and computer games are beginning to be accepted as artistic forms. The festival, which was a sell-out, showcased digital work from some of the finest – generally unsung – digital creators around and was notable for including a well-received compendium of FMV sequences from games.

The second incarnation of the world's only dedicated digital film festival was considerably more ambitious than last year's predecessor, spanning a week rather than a weekend and split into five distinct programmes rather than just one. It also included a Net Yaroze workshop which was received enthusiastically by the crowds, and response was such that festival directors Matt Hanson and Shane Walter are now planning to take it on a number of sorties overseas.

The five components – Wow and Flutter, a showcase of graphical imagery, much of which was created especially for the show; Lens Flare, the FMV compilation; Wavelength, a set of cutting-edge, digitally-biased pop promos and films set to music; J-Star, a showcase of rarely seen digital work from Japan; and Sequence+ V1, a collection of digital work created by UK colleges allied to the highlights of last year's programme, went a long way towards cementing people's ideas of what the elusive catch-all phrase 'digital film' really represents.



Heisenberg's uncertainty principal was explored by Fuel, with a celebrity voice over provided by Patrick Moore

Highlights included the director's cut of Chris Cunningham's video for Aphex Twin's 'Come To Daddy' – on the back of which the director has shot to fame, making videos for Madonna among others; digitally-captured short films from the hotly-tipped prankster Edmundo, a showing of the seminal anime work Ghost in the Shell, plus work from the likes of Fuel, Underbelly, antirom and Straw Donkey.

Festival director **Shane Walter**, who plans to take onedotzero2 to the Sonar festival in Barcelona, and is in talks with the Edinburgh Festival, Exploding Cinema in Rotterdam and festivals in Brazil and Montreal, said: 'The highlight for me was showing such a varied set of programmes, but still getting the right mix of audience.



The Honey Brothers' presented 'Drive all your cares away' as a response to the Government transport directive to reduce road traffic pollution

The philosophy behind Lens Flare was to show the tremendous amount of talent in the games industry which people generally aren't aware of, and that the industry is progressing towards telling stories in a different, non-linear way.'

Walter added: 'The J-Star programme was interesting because over here, we generally see perhaps two per cent of the really fantastic stuff that's coming out of Japan. Our short-term aim for the festival is to have a programme of fully commissioned, paid-for short films – of the 11 or 12 pieces in the Wow and Flutter programme, about ten were premieres which came about because of onedotzero – but it would be nice to have some money to use for commissioning.'

'Manga has made the first fully digital feature film, 'Dancehall Queen', and while more people are using digital special effects, they're also acquiring images digitally. Digital technology puts opportunities into the hands of many, and it will soon start pushing the moving image in different ways. It's a bit like what has happened with electronic music.'





Lost in Space's Christian Hogue, designer of the T1000 for James Cameron's stunning 'Terminator 2', produced 'The Deep' for the Wow and Flutter programme



Wavelength featured previously unseen work from video director Chris Cunningham. His director's-cut version of Aphex Twin's 'Come to Daddy' (left) ran alongside ColdCut and Hexstatic's collaboration, 'Timber' (right)

BIG NUMBERS

Sony has released its sales predictions for the next 12 months. According to the firm's report, PlayStation number 50 million will be purchased within the year. Current international sales stand at 32 million, with the modest grey box accounting for 22 per cent of Sony's profits, a total of approximately £230 million.

HEAVY PETTING

The virtual pet craze in Japan has reached new levels. Devotees are now able to lose weight with another breed of electronic pests. Essentially step-counters, the pets monitor how far their owners walk everyday, admonishing them if the distance is low. Three designs exist, including the 'Teku Teku Angel', and have sold over a million units.

BOX-OFFICE BUSTERS

According to a survey by the US Interactive Digital Software Association, distributed at E3, sales of computer games in America were worth $5.1 billion in 1997. Rental of games accounted for another $500 million. By way of comparison, the survey claims that US box office receipts were only fractionally ahead at $5.7 billion.

SEGA LOOKS TO PC (AGAIN)

After successfully releasing Saturn games on the PC, Sega is to launch its first game specifically targeting the platform. Code-named *Emperor*, it's a realtime strategy game that plunges players into the Imperialist tumult of the early twentieth century. *Emperor* will be the first in a line of original PC products from the company.

(out there)

Reportage from the periphery of the videogames industry

Pulling power



Forget sports holdalls and a £10 gift token, the latest bonus for opening an account is a cheap Game Boy

To gauge how popular something is, just take a look at adverts – if it's big in the cultural zeitgeist it will be used to promote anything from gin to disposable nappies. At the moment, with World Cup fever still in full swing, it is hard to switch on the TV and not see Alan Shearer woodenly endorsing Sainsburys – but, bubbling beneath the current football frenzy, advertisers seem to be slowly discovering the pulling power of videogames.

People are using videogame imagery to sell their wares to the kids. Halifax Building Society – not the most obvious interpreter of youth trends – is currently offering a reduced price on Game Boys to anyone who takes up one of its new Expresscash accounts. Nintendo's classic handheld usually retails for around £50, but finance conscious 11-15-year-olds can get it for £15 – until June 30th, that is. A current run of Insignia poster ads asks girls what would make their ideal boyfriend. One features the quotation, 'He's got to be good with his hands' with a picture of a boy grappling with a PlayStation control pad above.

And it doesn't end with trying to seduce 13-year-olds; advertisers are also targeting mens lifestyle mags. A recent advert for the infamous student's friend, Pro Plus, featured a screen shot from *Space Invaders*, the message being: if you want to play videogames until 4am, pop a couple of caffeine-filled capsules.

So why are videogames in vogue with the advertising industry? The answer is simple: videogames are popular with teenagers and young working adults – two lucrative markets in one – and, better still, videogames are, gulp, cool. **Edge** spoke to the agency responsible for the Pro Plus ad – Beeching, Dowell and Stubbs – and one of their creative copywriters, **Elvira Meucci**.

'Pro Plus is an energy enhancer so we looked at the various lifestyles of our target market – sex, clubbing, etc – but found that videogames, too, were very popular. We used *Space Invaders* because it's a classic and everyone can relate to it.' Videogames as popular as sex? When?

Halifax, however, offered the finest explanation for its tie-in. The Building Society's press release simply states: 'Videogame machines are the second most popular item held by boys.' No prizes for guessing what was first.

Videogames as movies

	Grand Theft Auto	Oddworld: Abe's Oddysee	PaRappa the Rappa	GoldenEye
The tag line	'Mirror, signal, kill!'	'They've eaten his friends, now it's time to bite back!'	'You will believe a dog can rap.'	'You know the name. You know the number. No fears. No limits. No substitutes.'
What's it all about, then?	Psychologically unhinged rookie criminal (Ray Liotta) engages in a one-man interstate crime wave in order to appease powerful Crime Lord, Marlon Brando – if he could somehow be winched onto the set. (Robert de Niro is second choice.)	Hideous wrinkly alien (Tommy Lee Jones) plans daring escape from nightmarish food factory. Jean-Pierre Jeunet of *Alien 4* fame to direct. Roseanne makes a cameo as a giant, wild carnivorous marshmallow.	Cute animated adventure in which an eponymous hound enters a rapping contest and wins against all the odds. There's a tried-and-tested spagetti/hound/kissing scene wedged in there.	British Special Agent foils evil plans for world domination. Loads of cunning stunts and near death moments including much in the way of cliff/motorbike/jet/train action. Love scenes a-plenty and deadpan one liners.
Will it work?	Would no doubt cause furore on both sides of the Atlantic for its blatantly immoral stance. The *Daily Mail* declares 'We've never been so outraged and disgusted', for the fourth time that week.	May perform well as a dark sci-fi romp in the '12 Monkeys' meets 'Delicatessen' mould. A range of edible Abe action figures could pull in yet more dollars.	Would probably work better in the US as 'PaRappa the Gangsta Rappa' in which the eponymous hound develops a crack habit, beats Sunny Funny and carries out drive-by shootings with Instructor Mooselini. Peace.	Suave secret agents, weird gadgets, action adventure. This theme would run and run with very little variation. Oh, apparently it already has.

Having already watched movies like 'Super Mario Brothers', 'Street Fighter the Movie' and 'Double Dragon' flop like celluloid wet fish, the US film industry is lining up its next wave of videogame-related motion pictures.

Due over the next two years are *Tomb Raider*, *Wing Commander*, *Doom*, *Duke Nukem* and, perhaps most promisingly, *Resident Evil* – which is at least being made by a proper director and not some 23-year-old pop video maker whose range of cinematic influences begins at *Blade Runner* and ends with *The Crow*.

It seems, however, that the videogame industry is taking this extra avenue of profit very seriously indeed. Interplay has even set up a new subsidiary named Interplay Films in order to pitch its game ideas at Hollywood. President of the new outfit, Tom Reed, has already ear-marked 20 of Interplay's 200 or so back-catalogue titles for possible film production – including *Carmageddon*, *FallOut*, *Descent* and, hilariously, *Red Neck Rampage* (**Edge** can already imagine the pitch: Well, Mr Spielberg, imagine this: 'Henry Portrait of a Serial Killer' meets 'The Beverley Hill Billies'...).

Inspired by the plethora of forthcoming releases (and the possibility of securing yet more industry junkets to exotic and far flung locales) **Edge** has put together its own short list of videogames which would make excellent films. The next stop, of course, is Hollywood...

Playing the field

Sony's VIP tent at May's dance music festival Creamfields was an opportunity for DJs, music journos, liggers and selected games magazine press to get a glimpse of *Fluid* – Sony's PAL version of its Japanese-developed interactive music title *Depth*. Big-name jocks such as Paul Oakenfold, Pete Tong and Paul van Dyk have recently been using the title for the mixing of realtime graphics into their sets.

Fluid sees the user take control of a dolphin who swims about the ocean floor looking for a series of floating shapes – these give access to various 'Cruise Stages': a series of beautiful themed-environments with different ambient tunes playing in the background. A simplified 8-track recording studio then allows tunes to be manipulated to create completely new melodies.

With a bit of effort it's possible to construct anything from soft ambient background noise to complex drum 'n' bass arrangements. A truly addictive aural experience.



Resident Cream DJ and 'bangin' choon' supremo Paul Oakenfold (above) has been using Sony's Fluid for mixing realtime visuals into his sets at the already heaving northern superclub

Drug bust

It seems the world's most controversial videogame has run into trouble again. Although *Grand Theft Auto* made it uncut into UK shops (albeit with an 18 certificate), DMA is having no such luck in the United States. There, a huge and highly influential chain of video rental stores has refused to stock the game unless all swearing and drug references are removed. Due to the market clout the company boasts, DMA is likely to have to play along, censoring the game for its entire US release.

Obviously, some of the game's gritty humour has been lost in the process. Crime Lord Bald Mancinetti, for example, no longer sells drugs to kids outside the school – he sells them 'sweets' (DMA has the last laugh in this case). Similarly, the Police Chief of Vice City no longer hires the player to waste crack-addict Rastas; he hires you to give them a good telling off.

However, some of *GTA*'s eccentricities have survived. Where players drive explosives into a police station, the vehicle still ploughs into a children's hospital if they get it wrong. It's also possible to type in 'I am Gary Penn' to access the 'extra sweary' version. Surely this all goes to show that censorship never works and free speech will win out in the end. Especially in America.



EDGE SINGLES OUT THE WINNERS AND LOSERS IN THE INTERMINABLE BATTLE FOR VIDEOGAME CRED

GAME ON

Dreamcast for re-igniting interest in the import, underground gaming scene. Import specialists are already claiming that there hasn't been this much interest in a new console since… well, the last one came out.

Rare, for continuing to provide high-quality N64 titles such as *Perfect Dark*, *Banjo-Kazooie*, *Conker 64* and *Jet Force Gemini* – not a bad line-up to take to Atlanta. But where was the racing game hinted at in **E**59?

Sega's new arcade system, **Naomi**, for offering amazing lowcost, realtime performance. 16 PowerVR Second Generation boards in parallel (at a hardware cost of just $500) sounds too good to be true…

Ex-Scavenger coders, **The Church of Electronic Entertainment**, whose Voodoo 2-powered racer will hopefully fund a giant 'end of the millennium' trance party linked around the globe. Beats E3 parties…

Pokemon fever, as created by Nintendo in Atlanta. Not about the game, that is, but the superb zip-up toys that were regularly blasted out at the heart of Nintendo's stand to crowds of frantic, grabbing punters.

The **international courier**, that sent NASA rocket parts to Sony's E3 floor space instead of its exhibits. And **US Customs** for withholding 2,000 copies of **Edge** on their way to Atlanta. Like, cheers guys.

The ludicrous amount of **cash wasted** on superficial exhibitor tat at E3. If softcos channelled their resources into developing decent games in the first place, then maybe they wouldn't need to shout so loudly.

Atlanta. Goodbye to the redneck backwater from hell. Downtown Los Angeles for 1999 has never been more appealing.

The Times' **Tim Wapshot** for his horribly deluded review of *Gran Turismo*, in which he awarded Sony's masterpiece six out of ten. It's not as good as *Need for Speed 3*, apparently.

Dreamcast, whose weirdy brand name has failed to inspire confidence in everyone outside Sega – except, it seems, **Edge**.

GAME OVER

NUMEDIA

A MEETING POINT FOR MEDIA CAPITALISING ON THE DIGITAL ENTERTAINMENT REVOLUTION

GADGETS





Fujifilm MX700 Digital Still Camera

Digital cameras are getting better and cheaper all the time, and here's the proof: Fujifilm's MX700 comes with features normally associated with pricey professional digicams, but is a fraction of the cost.

The secret behind its astonishing picture quality is a 1.5-million pixel CCD which converts the seen subjects into digital images that can be downloaded onto a Mac or PC. Of course, none of this would matter if the rest of the spec wasn't up to scratch, but the MX700 comes with twin RISC CPUs that can save a JPEG image to a removable SmartMedia card in five seconds, and a rechargeable Li-Ion battery that's good for 250 shots between recharges.

Other clever stuff includes a twin-reflex lens – as found in TV cameras – so subjects are always in focus, wherever the camera is pointing. And all this is presented in a tasty aluminium box the size of a pack of fags.

£650
Fujifilm
Tel: 0171 586 5900
Out now

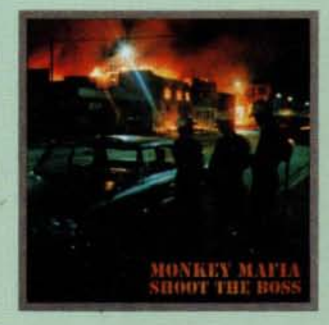
NEC PlasmaSync 4200W – 42-inch Widescreen Monitor

Hang-on-the-wall TVs are still some time away from becoming a practical proposition for most people, largely because they're so expensive. Prices are dropping rapidly, though, thanks to mass production, and the fact that the big TV players – Philips, Sony and Thomson – are due to foist their monster sets upon the world.

Until then, try the NEC PlasmaSync 4200W. This is a good near-£10,000 worth of hi-tech telly aimed at home cinema buffs, businessmen and gamers. Plasma LCD screens offer extremely high resolution and are much brighter than equivalent front or rear projection systems, and NEC's version is certainly the best yet for delivering top quality images. The PlasmaSync comes with all the socketry needed to splash pictures from a PC, game console or DVD player on its perfectly flat screen, and there's an LCD remote control for switching between different picture sources.

£9,800
NEC (Europe)
Tel: 0181 993 8111
Out now

MUSIC



Shoot the Boss
Monkey Mafia
Heavenly

The big beat scene exemplified by the Heavenly Social may no longer be considered the cutting edge, but Carter's use of insanely muscular rhythms has always been a labour of love rather than a fashion. Moreover, his sound is equally fuelled by a love of black music, with reggae written through cuts like 'Work Mi Body' like a stick of Jamaican rock. That dancehall creation features here, nestling alongside eleven equally powerful tracks. The surprise here isn't how Carter manages to sustain the pace; rather, it's how many unique and subtle touches he manages to fit between the bludgeoning beats. Skillful stuff.



Feeding Frenzy
Omnivore
Hydrogen Dukebox

The debut from up-and-coming dancefloor botherers, Omnivore, is a deliciously playful affair, masking an astonishing grasp of tones and sample manipulation behind infectious beats. Opener 'Spandex' exemplifies this style, with its latin-flavoured handclap disco beats, techno crescendos and bluesy vocal cuts. There are darker, trancier moments to be found, most notably on 'Querelle' and 'E-Mail', but even here Omnivore can't resist pairing the haunting melodies with house-friendly drums. Fans of intelligent but emotive electronica are advised to join the Omnivore bandwagon now, before it gets too crowded.



Toshiba SD-3107B DVD Player



£550
Toshiba
Tel: 01276 62222
Out now

Digital Versatile Disc – the oft-cited future of home entertainment – is well and truly with us. The first batch of studio-quality movies are already appearing in major high-street stores, with machines to play them on available from major manufacturers like Sony, Panasonic and Thomson.

Toshiba's version eschews the glamorous gold or black casings favoured by its rivals in favour of a rather nondescript grey, but underneath the skin is a cracking little machine that not only offers brilliant sound and picture quality, but comes with a batch of useful features like black contrast – a gizmo that makes sure black areas are suitably dark – and a zoom mode to zero in on a particular scene and also to change the area that has been zoomed in on, simply by fiddling with the remote. The Toshiba also supports major surround-sound formats like Dolby Digital, and comes with all the socketry needed to hook it up to a home cinema system.

Sharp MD-R3H Hi-Fi Separates MiniDisc Recorder





£349
Sharp Electronics
Tel: 0345 125387
Out now

Every year since the format's launch in 1992, someone at Sony has declared that this will be the year of the MiniDisc – only this time it might actually be true: increasing numbers of hi-fi manufacturers are backing the format with products of their own, and you can actually buy blank discs from record shops, making its acceptance by the public all the more easy.

Although Sony is still the largest purveyor of all things MiniDisc, Sharp is rapidly catching up, thanks to a range of innovative MD products like this hi-fi separates recorder. Boasting a three-disc CD autochanger, this ridiculously cheap machine enables you to create instant compilations simply by choosing the tracks you want from each CD, then pressing start to dump them on to MiniDisc. It's simple to use – recording levels are set automatically – and you can do all the usual MD tricks like add, move and combine tracks, give them names or simply delete them. The future of tape, indeed.



The World of Tomorrow
Komputer
Mute

What if Kraftwerk had been bigger than The Beatles? Chances are the charts would be filled with the sort of music found on Komputer's latest ode to power of all things digital. Vocoded singing, ringing phones, metronomic rhythms and the synthesiser sounds of the future (circa 1983) are all brought out of storage by this worryingly obsessed three piece. Wonderfully geeky, there's even a track called 'Bill Gates', complete with suitably binary-style lyrics: 'Bill Gates, Bill Gates, Bill Gates'... Just how ironic 'The World of Tomorrow' is intended to be isn't clear, though. Are Komputer serious about this Gerry Anderson brand of future-retro?



Consumed
Plastikman
NovaMute/Minus

Like Komputer, Plastikman's Richie Hawtin was weaned on early electronic – discovering Kraftwerk and Tangerine Dream in his father's record collection. But there the similarities end. Like 'Sheet One' and 'Muzik' before it, this is anything but listener-friendly, with Hawtin further exploring the spaces between the sounds as much as anything. But while the minimalism is reassuringly familiar, the atmosphere is anything but, reverb adding extra 'ghostliness' to music already sounding like it comes from beyond the grave. 'Consumed' is further testament to Hawtin's mastery of sound. What listeners will make of it is another matter.

▶

DVD

Mars Attacks!

The US and Japan may have witnessed the DVD revolution over a year ago, but only now does the UK public get a chance to pop into their local HMV and obtain a PAL (zone 2) five-inch silver disc. Warner is one of the few players to take the UK DVD plunge, with ten proposed titles. One of the more recent offerings is *Mars Attacks!*

While Tim Burton's much-criticised 50s-based sci-fi comedy never goes far enough to truly justify the director's particular brand of humour, *Mars Attacks!* can still claim an impressively distinguished cast, as well as several masterful sequences, most of which naturally involve the diminutive CGI Martians.

These are beautifully realised, with convincing animation, and their detail is remarkable, even more so as a result of the clarity offered by the DVD format. Even when put against the NTSC laserdisc, this DVD version stands out with better contrast levels, superior colour separation and an overall higher definition.

A theatrical trailer and production notes complement an already impressive package.



Published by Warner Home Video
Developed in-house
£16
Out now

CD-ROM

Ceremony of Innocence

Apart from picture collections, commercial success usually evades CD-ROMs of an artistic orientation, so with production costs of around US$1million, *Ceremony of Innocence* would appear ambitious in the extreme.

Yet, when it comes to colourful imagery spiced-up with touches of digital frippery, few do it better than Peter Gabriel's team at Real World Multimedia. The work is based on Nick Bantock's bestselling Griffin and Sabine trilogy, and stars the voices of Paul McGann, Isabella Rossellini and Ben Kingsley. How could it go wrong?

Its linear narrative aside, *Ceremony of Innocence* does all it can to draw in cerebral users. The story's a mysterious chronicle of the relationship between McGann's Griffin and Rossellini's Sabine, who correspond via elaborately designed postcards. With him cooped up in his NW3 studio and her on a South Pacific island, they try to connect as much through their prose as the symbolic images painted on the cards.

Using the disc can prove intriguing – when compared with most other multimedia offerings. Each postcard includes some sort of interactive gimmick. A lizard devours a butterfly; a giraffe-necked man runs across the screen, chased by cave painting-style antelope-women.

Rich in detail, *Ceremony* is oddly charming. Brilliant snippets of video art, like much of the artwork, occupy too little of the screen, yet hint at what DVD could do for a disc like this.



Published by World Multimedia
Developed in-house
£25
Out now (Mac/Windows)

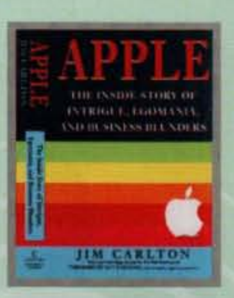
BOOKS

Apple

The arrival of a glut of books on a specific company usually signals either its sudden, splendid success... or its imminent demise. In its 22-year history, Apple Computer Inc has been on the receiving end of two discrete publishing booms. Whereas the first wave were more fairy tales than business histories, the second will ultimately be filed under 'corporate post-mortem'.

Subtitled 'The Inside Story of Intrigue, Egomania, and Business Blunders', Jim Carlton's book is a dense chronicle of the boardroom backstabbing and widespread managerial incompetence that has bedevilled Apple. Swiftly chopping through the glorious start-up years when Steve Jobs and Steve Wozniak evangelically defined the personal computer market, Carlton moves on to concentrate on his real meat – the period following Jobs' departure after a battle with CEO John Sculley in 1985, this being the first time Sculley has discussed his time at Apple.

And it is for this reason that a history of the company that turned computer ownership into a religion is such hard going. While there is ample analysis of Apple's products (soaring over budget, dodging ship-out dates, blowing up and, occasionally, working) the main players in this drama are the grey men. Sadly, with the exception of Jobs, they are all so boring that you can't help longing for an exposé of that livewire Bill Gates instead.



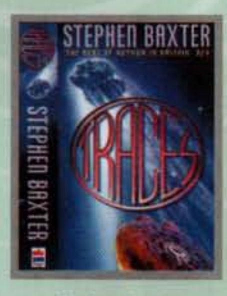
Jim Carlton
Publisher: Century
ISBN: 0-7126-7901-4
Price: £20

Traces

Blasphemous though it may sound, futuristic fiction didn't come into being with the invention of cyberpunk. Back in the dark ages, it was called science fiction; today, the mere phrase is enough to get teeth grinding. But not all of it was of the 'lost in space with phasers set to stun' variety. To his credit, Baxter, in his second collection of short stories, revives the genre, successfully treading the tightrope between traditional sci-fi's better face and the current glut of 'kid hackers on designer drugs fighting neural nets in some rundown section of old Tokyo'.

Ranging from the steampunk romp of 'A Journey to the King Planet' ('2001' laced with nineteenth century imperialism), to 'Darkness' (a neat investigation into cyber-ethics), via the cool repositioning of Superman as a post-modern messiah in 'Good News', Baxter flirts with a bewildering array of technological ideas and philosophic daydreams. It's no surprise to learn of his scientific education and subsequent career in IT, nor to hear that his influences include proto-cyber writers Arthur C Clarke, James Blish, HG Wells and Isaac Asimov.

Baxter's underlying focus is on the moral strength of his characters as they interact with twisted scientific laws and hybridised technology, rather than the machines themselves.



Stephen Baxter
Publisher: Voyager
ISBN: 0-00-225427-1
Price: £17

MUSIC



White Bird
Astralasia
Magick Eye

With Melanie Taylor and several instrumentalists now accompanying core band member Swordfish, 'White Bird' showcases a more mainstream, but far more attractive side to Astralasia. With its use of that post-Faithless keyboard sound so beloved of Sash and Co, lead track 'Special World' suggests Astralasia may yet make it to *Top of the Pops*. A couple of tracks rely on the high BPM, low interest formula of old, and the reggae-lite of 'The World Outside' is unlikely to convince anybody. But when Taylor's vocals are pushed to the fore, as on 'One Fine Day', the results are strong enough to suggest that Top 40 outing is imminent.



Fusion
Mixed by Sven Väth
Virgin

Once king of the techno concept album, Sven Väth returns, after four years, with his sights on the dancefloor, eager to cut a rug with some audaciously funky music. The turnaround is amazing, with snappy, swinging editing in place of extended journeys into sound, and a desire to raise smiles replacing the urge to get all deep and meaningful. With a title track picking up where Yello left off, and an armful of equally 'Carnival'-esque cuts as keen to play with jazzy vibraphones as demonstrate a faultless use of technology, this is proof positive that Fusion needn't involve compromise, and an ideal starting point for those yet to hear Väth in full flight.



[BIG IN JAPAN]









New characters include Laguna Loire (below) and Squall (above). The prominent scar between his eyes is explained in the game













Square vice president Hinobu Sakaguchi cautiously fields questions from Japanese press as the first images and details from *Final Fantasy VIII* (set for a winter release) are announced

THIS MONTH...
FINAL FANTASY VIII

Square Fantasy is Reality

On May 15th, during a packed press conference held in the basement of First Building in Roppongi, Square at last presented *Final Fantasy VIII* to the clamouring masses of Japanese press. Or at least, the company presented a rolling demo of the title which – composed mostly of impressive CGI sequences rather than ingame footage – actually raised more questions than it answered. However, at least it gave a few tantalising hints as to what gamers can expect from the latest title in a series which has already sold nearly 20 million units worldwide.

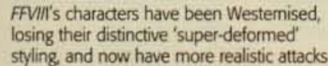
Although facts are in short supply then, it is clear Square has been influenced by the success of *Final*















FFVIII's characters have been Westernised, losing their distinctive 'super-deformed' styling, and now have more realistic attacks

Fantasy VII abroad and has taken foreign audiences into consideration here. For example, the characters are now more realistically proportioned, no longer sporting the squat bodies and large heads associated with the 'super-deformed' or 'Kawai' (cute) style of animation. This tradition may be hugely popular in Japan, but in the US – where developers like id and Epic aspire towards ever greater realism – kids don't go for heroes with huge craniums. On the subject of characters, only two have been announced so far: Squall Leonheart, the handsome 17-year-old hero (designed to attract female gamers), and the rather-too-feminine sounding Laguna Loire.

The concern for realism also extends into gameplay. Although the battle system looks similar to that employed in *FFVII*, magic and sorcery have been removed in favour of more 'believable' weapons like bombs and machine guns. Squall's own weapon, however, does maintain something of a fantasy RPG feel: the Gunblade is a handy combination of gun and sword with a few special power-ups built in for good measure.

At the end of the presentation, Hinobu Sakaguchi (*FFVII* director and Square vice president) and Takeichi Tomoyuki (Square president), made themselves available for press interrogation, but clammed up when asked anything too pressing. Instead they discussed the success of the *Final Fantasy* series, especially *FFVII*; seen as a landmark because of its international success (a prompt foreign conversion of *FFVIII* has since been promised) and its CD format which allowed the use of lots of CGI sequences. When pushed, they did reveal that *Final Fantasy VIII* would be based around the emotions and feelings of the protagonists rather than out-and-out combat. The series has always been rather emotive, so **Edge** expects gamers to be weeping helplessly over their consoles when the game is released in Japan at the end of the year.







Certain environments will remind players of *Final Fantasy VII*, although the overall feel of part *VIII* is thought to be less dark than part *VII*. Square's high graphic standard will be maintained



an audience with...

goD

Praise be to GoD, a group of developers who have denounced publishing companies and created a new way to bring their games to the masses. Where oft-cited sins include: publishers taking credit for developer's work; publishers skimming off too much of the profits; publishers riding roughshod over the creative process; and publishers generally being devoid of ethics, GoD believes it has a divine right to cut out the middle man...

Photography: Jude Edginton

Whereas artists such as Oasis, Michael Crichton, or Tom Cruise are treated like royalty by their respective record labels, book publishers, and movie studios, in the world of games, top developers are, according to Gathering of Developers' **Mike Wilson**, 'screwed, time and time again.'

But Gathering of Developers (affectionately known as GoD) plans to do something about it. Based in Dallas, a group of eight battle-scarred developers (including 3D Realms, Epic MegaGames and Terminal Reality) have decided to go solo. The plan is to cut as much of the 'excess fat' that exists between the game developers and gameplayers as possible. How? By establishing a lean, skeleton publishing operation that fulfills all the functions of a traditional publisher but offers the founding developers (each company has a representative on GoD's board of directors) as much creative freedom and earning potential as possible.

If it works, the Gathering of Developers will have pioneered a new publishing standard, the game industry may never be the same again. **Edge** met with Mike Wilson, GoD's CEO (formerly of id Software and Ion Storm), and Harry Miller, CEO of Ritual Entertainment (and one of GoD's founding developers), to discuss their chances.

'IN EARLY HOLLYWOOD, WHEN UNITED ARTISTS WAS FORMED, THERE WAS ONLY A HANDFUL OF ACTORS AND DIRECTORS DOING WELL – THE REST WERE DOING SHIT. THESE PEOPLE CREATED AN ORGANISATION THAT VALUED CREATIVE TALENT HIGHER, AND THAT IS WHAT WE'RE DOING'

MIKE WIL

Edge: What's the philosphy behind GoD?

Mike Wilson: GoD is the result of a few other people besides myself having been in the game industry for a while, working with some of the best talent around – in my case id – and seeing some of the crazy things that happen.

For example, look at the GT Interactive story. Before publishing *Doom 2*, GT was a small company. Then *Doom 2* came along – created by id, published by GT – and a couple of years later, id had made maybe $8 or $9 million, but GT had made a billion-dollar IPO [Initial Public Offering]. And when it went public, over 95 per cent of its revenue was based on id software's games, and they didn't even have a long-term deal with us! [laughs].

Edge: You're saying that GT got rich because of id's game?

MW: Right, and we sat back and watched this happen. And then we watched GT start believing that it was the one that had made *Doom 2* such a hit, and we watched when it believed that it could achieve the same success with any piece of shit that was thrown in a box.

And this is just one example. This sort of thing happens all the time. There are countless other stories of developers getting screwed and publishers taking the credit for other people's work.



Edge: What proof do you have that this 'happens all the time'? How do you know it isn't simply your own personal experience?

MW: Just look at the recent trend of developers leaving publishers to set up on their own. Look at how no publishers are able to keep the top development talent in-house. Everyone's splitting and doing their own thing. This is proof that no-one's looking after creative talent properly.

Edge: And you decided to do something about it.

Harry Miller: Around Dallas there happened to be a group of game developers who had similar bad experiences, who saw all of this happening, and decided to do something. And this is how GoD started.

Edge: So how do you hope to make things better?

MW: Basically, our point is that right now the game industry's creative talent is undervalued. GoD is, as the name suggests, a group of experienced developers – and there are eight founding companies at the moment – who have joined together to form their own publishing company. There will be a small, core staff of people in a central office, but a member from each of the founding developers will sit on GoD's board of directors and run the company for the benefit of themselves. The whole operation will be geared towards helping the creative talent make the best possible games and rewarding this talent when they do so.

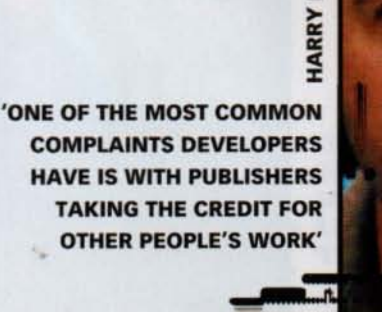
Edge: It sounds similar to the thinking behind the creation of United Artists in the early days of Hollywood...

MW: On a very high level, conceptually, Gathering of Developers and United Artists are very similar in thinking. In the early days of Hollywood, when United Artists was formed, there was only a handful of actors and directors who were doing well – the rest were doing shit. These people banded together and created an organisation that valued the creative talent a lot higher, and that is essentially what we're doing.

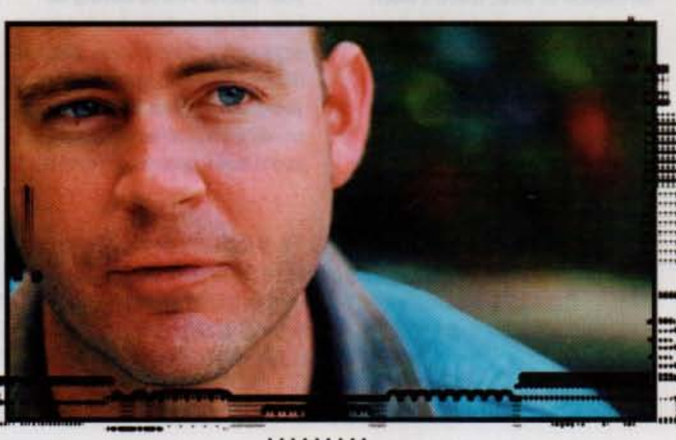
Edge: In what ways, then, do some publishers treat developers badly?

MW: It's the whole attitude. Again, basically, it's a general undervaluing of the creative talent that makes the industry possible in the first place.

HM: One of the most common complaints developers have is with publishers taking the credit for other people's work. For example, a developer invests everything it's got in making a title as good as it can ▶



'ONE OF THE MOST COMMON COMPLAINTS DEVELOPERS HAVE IS WITH PUBLISHERS TAKING THE CREDIT FOR OTHER PEOPLE'S WORK'



HARRY MILLER

possibly be. And then – when the game finally reaches the store shelves – the developer's name is nowhere to be seen on the box.

MW: Or if it is on there, it's in tiny type at the bottom of the back cover along with the copyright information and the manufacturing credits.

And it's not just for fame and glory. These people are trying to build a professional reputation and make a name for their business.

Edge: How else do developers suffer at the hands of publishers?

MW: Financially speaking, some of the best developers are getting lousy deals. As it turns out, Harry and I had some of the best deals in the industry for our companies, but previously we thought that they sucked. It's only when we started travelling around and speaking to other developers that we learned other people were getting fucked over worse than us.

HM: We'd meet with developers, swap notes on what our deals were like, and their jaws would drop.

Their publishers would be telling them that the only reason they were selling any games at all was because of the publisher's skill in marketing and distribution, so they should be thankful for what they got.

Edge: So you're saying that in the game industry today, publishers take too much credit for developers' work?

MW: Right, but it's about more than just money or where their names go on the box. The issue here is about understanding development and how to deal with artists in the context of development studios.

Edge: So what will GoD do differently?

MW: One of the big differences you'll see is the way that games are branded. Right now, when you buy a game, you're expected to base your decision on the publisher. This just doesn't make any sense.

With the one exception of EA Sports, I don't see any value in branding a publishing label. I mean, what gamer would walk into a store and think, 'You know, I really feel like buying a GT game or an Interplay game today'? Yet all these publishers are working as if this is what happens. Does anybody give a shit that *Quake 2* was published by Activision? Of course not. But they probably care that it's from id.

HM: On the financial side, we're making it possible for the developers to get a fairer slice of the profits if a game does well. We have a sliding scale of royalties that means that if a game doesn't do well, then sure – the developer isn't going to get rich. But if the game does sell, more of the profits go back to the developer.

MW: And when a product is published, it will get proper resources. It won't just be 50 copies slung out under some contractual obligation in the cheapest possible box with no marketing budget.

Edge: And will all developers be welcome to publish their games through GoD?

MW: No, not everyone can join. And this is a common misconception that people have about GoD. There's a core group of seven or eight founding companies who each have equity in the publishing company, and that's about it. There would have to be a pretty good reason for us to let anyone else become part of the core membership.

We'll certainly help all the little guys out there in terms of making information available about what's a good deal and what's not, but this isn't any kind of big, umbrella organisation, by any means.

Edge: Since you announced the formation of GoD, there's been a lot of people who've been scathing in their criticism and who claim it can never work.

First, some people see this as the 'lunatics taking over the asylum.' After all, if businessmen with MBAs and Armani suits can't make games, why should game makers be any good at the business side of things?

MW: The developers aren't being asked to become businessmen, they're being given the space and resources to make games. What we plan to do is have a core staff of people at GoD's headquarters, who can then hire in outside 'business experts' as and when we need them. It's all for rent. All this expertise isn't exclusive to the inside of big publishers. Just as with development talent, the best people are working for themselves, and we'll hire them when we need them. This way we keep the overheads down and work with the best people.

Edge: What makes you think all this is so easy?

MW: My experience at id, when Jay Wilbur and I handled the distribution of *Quake*, helped confirm the idea that all this business stuff – all these grand marketing plans and distribution deals – is not rocket science [laughs]. All this 'mighty organisation' that puts software on shelves, it's ridiculous. It's simple: There are around ten buyers that you go to, and if you have a good product, they buy it. We did it working part-time while we were running the rest of the company.

Edge: Okay, but this leads on to the next common criticism of your plans: You're basing all your opinions from having been at id and selling *Quake*. You had it easy. Had you been stuck with some lame game from some small, unfashionable developer, you'd have probably found that all this 'business stuff' took a lot more skill and effort...

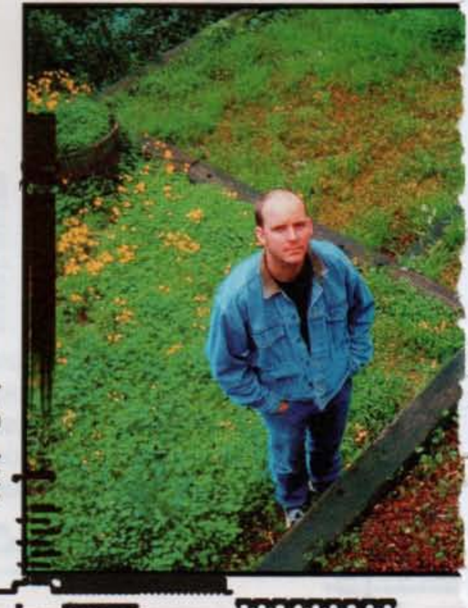
MW: That's a fair point, but I'd contest that it requires much expertise – all this stuff is for sale. You want your game given better positioning in the stores? You pay the store money to have your game put on the end sections. It will cost you or me the same to buy this stuff as it would cost GT or anyone else.

Edge: Another criticism is that while 'publishing by committee' or running a company as a democracy may be great in theory, it's just not practical. In any publishing business, every now and then, tough, unpopular decisions have to be made.

Isn't GoD doomed to either endless procrastination or bitter, self-destructive infighting as soon as the going gets tough?

HM: Okay, so you've got a collective of developers who are all working hard to earn money and make this

'WHEN A PRODUCT IS PUBLISHED, IT WILL GET PROPER RESOURCES. IT WON'T JUST BE 50 COPIES SLUNG OUT UNDER SOME CONTRACTUAL OBLIGATION IN THE CHEAPEST POSSIBLE BOX WITH NO MARKETING BUDGET'



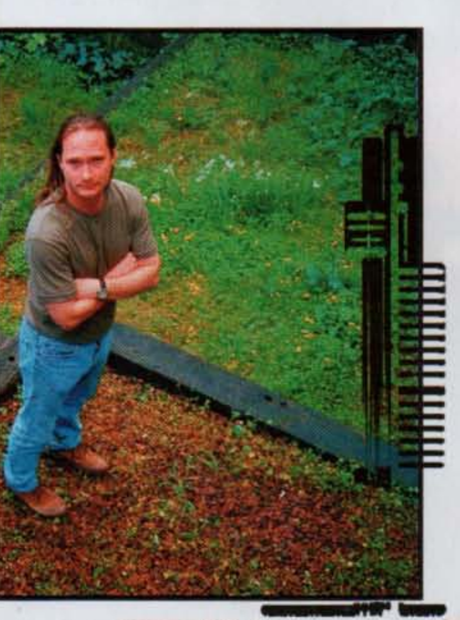
thing work, and there's one member who isn't pulling his weight. What do you think the others are going to say? They're going to be just as demanding and every bit as ruthless as the hardest publisher.

MW: We have systems in place for dealing with this. And, of course, everyone wants to know what will happen if they become the fuckhead. It's not like we're this brotherhood in which everyone's happy – we're a business, made up of individuals who are used to running healthy, independent businesses. These guys are all successful. They all have big egos. No-one wants to be the turd that everyone's pushing around.

Edge: But can you make the tough decisions? What happens if all eight developers come to the board meeting and say, 'We're running late, we're going to miss the Christmas sales period.' Someone needs to be forced into making a deadline – who's that going to be?

MW: No, we don't need to have games out for the holidays. You ship it when it's fucking finished. It's a creative process here – that's our whole point. Obviously, it can't be completely open-ended. But we can cut a little more slack.

Edge: Some people question your maths. You say that you're going to take profits away from publishers and give them back to developers, but it's not as if



'THIS IS TESTAMENT TO HOW LOW THE COMPETITIVE LEVEL IS RIGHT NOW. THESE ONE-HIT-WONDERS ARE TOP TEN PUBLISHERS. WHAT DOES THAT SAY ABOUT THE INDUSTRY?'

many publishers are getting fat these days. The fact is that for every one instance a publisher picks up a game and makes a mint, there are countless other times when they invest millions of dollars into development of a game that flops. Surely, the few times a publisher hits the jackpot is fair reward for the many times they gamble and lose?

MW: There will always be risks, but we can minimise a lot of them. There are several things we can do. First, we can remove a lot of the last-minute surprises. For example, I don't think there's any way that Epic could have told the GoD board last November that *Unreal* was really going to make Christmas! [laughs]. I mean, it might be able to fool GT, but it wouldn't be able to do this with us. Remember, we're developers also. One of us would quickly have said, 'Bullshit! It's not going to make it!'

HM: There's this misconception that somehow developers are going to get an easy ride at GoD, but think about it – when a product comes in front of the submissions board, it's going to be judged by a jury of not only your peers, but people who have a financial interest in how well the product will do. Everyone is going to be kept on their toes.

Edge: And do you think you can guarantee a higher 'hit rate' than the mainstream publishers?



MW: To a certain extent. If you look at the top ten products each year and take out the shit like Hasbro [laughs] and random sports titles, then it's really the same people making the hits year after year.

Edge: This concept isn't entirely new. Aside from United Artists, Electronic Arts was founded on a similar premise, back in 1982...

HM: We know that this isn't a new idea. Within the game industry, many people have come up to us and said, 'Hey, we thought about doing this a few years ago.'

MW: EA kind of tried it, way back when, but then the time wasn't quite right for this type of organisation. There wasn't the money in the industry to give a group of independent developers enough clout to go it alone.

Edge: But surely EA is now the single biggest corporate, business-oriented publisher of them all. Doesn't it epitomise everything you think is wrong with the game industry?

MW: In a way, yes. But EA doesn't really deal with a lot of the top developers, and it, in EA Sports, has perhaps the one legitimate case for publisher branding.

Edge: But the point is that this is the company that started out with the same ideals you are now championing! Somewhere along the line, people at EA rejected these ideals in favour of a different direction. Aren't you doomed to follow a similar path?

MW: Not necessarily. It all comes down to key management decisions made at key points along the way. I'm sure it's sometimes very easy to start believing that what really matters is marketing and distribution. But GoD is owned by developers – and they will keep us focused on what we believe to be true.

Edge: You are very confident...

MW: Yes, we are. We have some really smart people joining us from other publishers – the people we've met along the way who've really impressed us.

And look who we're up against. I mean, who the hell was Eidos? Domark and US Gold? And suddenly, out of the blue, *Tomb Raider* comes along and they're like this bad-ass publisher? Just this one product, and all of a sudden Eidos can get anything they want? *Tomb Raider* is still all they've got – and they're still in the top ten. This is just more testament to how low the competitive level is out there right now. All these one-hit-wonders are top ten publishers. What does that say about the industry? It shows that all the top publishers have just one or two developers who are the hit-makers, and they're using them to subsidise all these other legions of crap that get produced every year.

So if you take just the best people, and free them from having to subsidise everyone else, and let them work more for themselves, then you've got a winning formula. This is what GoD is all about. It's the best deal out there, and this will become clearer as more and more developers climb aboard. E


e3
NINTENDO



NINTENDO'S ELITE

A STRONG N64 SHOWING, BUT THE POMP AND CIRCUMSTANCE COULD NOT DISGUISE THE CRITICAL SHORTAGE OF NEW TITLES

Since the N64's first appearance three years ago, 1998's E3 was perhaps the most crucial. With the smallest domestic market share in the company's history, and still trailing behind Sony's sales figures in the US and Europe, Nintendo needed a stronger line-up than ever in order to restore confidence in those who believe its current platform may be in trouble.

Of course, the response was typically Nintendo. In addition to unveiling the colour Game Boy and introducing the *Pokemon* phenomenon to the West, the Kyoto-based company lured thousands of visitors to its massive stand (E3's largest), which housed some of the show's strongest titles among a reasonable number of forthcoming N64 releases. Naturally, Space World giants such as the prodigious *Zelda: Ocarina of Time* and the fluid *F-Zero X* attracted huge interest, and favourable attention was also paid to the company's recently announced sports brand, currently comprising the disappointing *Cruis'n World* together with competent basketball, baseball, and golf titles. But the fact that these shared the floorspace with titles such as the laughable *Mortal Kombat 4* will have diluted Nintendo's overall message.

The real excitement, then, was left to the *Perfect Dark* booth, its three minute video presentation deservedly drawing large crowds. Indeed, Rare's already impressive *GoldenEye* follow-up formed part of a superlative batch of releases from the seemingly infallible Twycross-based company: a finished *Banjo-Kazooie* returned after its surprise announcement last year and, visually at least, it occasionally looked ahead of Nintendo's own products, including *Zelda*. Meanwhile, *Twelve Tales: Conker 64* takes cartoon world cuteness a step further and the newly-announced *Jet Force Gemini* made a brief but exciting video appearance.

Elsewhere, however, the show told a



different story. A quick stroll through the stands revealed a distinct lack of N64 software, with the majority of publishers failing to exhibit display booths with trailing trident-shaped joypads. The few exceptions included the impressive, Iguana-developed, *Turok* sequel, DMA's promising duo *Body Harvest* and *Silicon Valley* (at the Gremlin and Take 2 stands respectively), and a faithfully reproduced *Fighting Force* from Eidos. Meanwhile Psygnosis showcased its 64bit version of *Wipeout*, which other than the simultaneous four-player option looked decidedly 32bit. Still, there was other hope for N64 racing fans, in the form of Infogrames' *V-Rally 64* and Video System's Paradigm-developed *F1 World Grand Prix*.

With four yet-to-be-released 64bit titles, Konami had more than most, but disappointingly, both *Hybrid Heaven* and *Castlevania 64* failed to appear other than in video form, leaving just *ISS'98* and the very early-looking *Survivor Day One*, a third-person futuristic adventure.

Proportionally, the N64's line-up contained more potential triple-A titles than either of its PC and PlayStation counterparts, yet it was impossible to dispel the worrying impression made by the noticeable absence of new, forthcoming software. So few titles actually made it to E3, that its critics will have returned home unconvinced. ▶



SHOWTALK THE PERFECT DARK TEAM



Edge: What exactly do you want to achieve with *Perfect Dark*?

Rare: The idea was to take a whole fresh universe, a fresh story... to improve everything in *GoldenEye* and hope we can be as innovative again, which is very challenging but hopefully we'll come up with plenty of stuff. The big thing with taking a whole new story is that we have control over the environments. On *GoldenEye*, this was totally dictated by the film, which was good because it forced us to do things that hadn't really been done before in that genre – like exteriors, but this time we can make it look how we want so the artists are having a lot of fun. Also, we wanted to do something sci-fi... with guns... big guns. [Laughs]

Edge: How do you begin to start something like this?

Rare: We sat around, had a bit of chat about what would be good. We had a list of all the things that needed to change and all the new ideas – just what everyone thought they'd want in the game. The graphics tend to build up at a faster rate because they need to be up before the gameplay can go in, and then the gameplay alters so the graphics need to change to take this into account. So we have a good notion of what's happening in each level, but when it goes in you always think 'wouldn't it be great if it could do this or if it could do that' and so you go back and the graphics get changed again. It kind of grinds its way up in stages.

Edge: Do you use solid models for the level design?

Rare: We have ideas and then the artists make an environment, and as they're making it you come back and say, 'yeah, that's good, maybe you could do this as well'. It's not a case of taking a map, sticking it down in front of them and saying 'you must do this'. The first level takes place inside a skyscraper and Karl [Hilton, 3D artist and architecture graduate] was really proud of it because this was the skyscraper that he wanted to build. The environments could physically exist – we don't have, for example, a big tower with a ramp up its side just because it sounds like it could be a good idea – it should be practical, with doors and things like that. So the skyscraper has service stairs, it has an exterior, you can get around it and go outside, and so on.

Edge: What's been the hardest aspect to get right so far?

Rare: The hardest thing has been overcoming the fear of beating *GoldenEye* – that's been really hard. It's a tough act to follow. It's even worse now that we've won the [AIAS, see p10] awards, in a way. We're always happy to win those things but it's going to be difficult going up.

Edge: But there have to be things that you weren't happy with in *GoldenEye* that you can improve on?

Rare: Yeah, there's a lot. The success of *GoldenEye* was kind of a surprise to us in a way because we knew what we wanted to go in it, and there's a lot of things that didn't and mistakes that did, so we weren't too sure how the product would be received. So that's another reason to do it again and this time sort out all the stuff that didn't make it into *GoldenEye*.

Edge: The PC market seems inundated with first-person shoot 'em ups, but few of them seem able to deliver a gaming experience even remotely similar to *GoldenEye*. Do you see a difference between console and PC players?

Rare: I'm sure that if we were to do *Perfect Dark* on the PC we would do the same kind of game in the PC market, because the specs of the machines are so high now, the temptation is just to make it look really great. And with a lot of the games you can see that the gameplay isn't as important to them as making sure that their product looks better than the other PC titles that are using the same card – it's so fiercely competitive now. On a console we're far more limited with what we can do with the graphical side, so we have to get more gameplay in there: if you've got a good game and a good engine you can then build a story into it and people start to care about what they're doing – it's a lot more exciting to go and rescue someone than to go and pick up a yellow card to open the door. You get involved and then you care about them, you learn things, so the story is really important. And then at the end of it you get a real sense of achievement. That's what's really good with this, it's that people don't know the story before they start. With *GoldenEye* you knew exactly what was going to happen – although we did change the story to some extent. This time, as you play through it you'll be trying to decide what the right thing to do is, and who are your friends and enemies.

Edge: Can players expect *GoldenEye*'s high level of immersion in *Perfect Dark*?

Rare: Well, essentially we're doing the same again, except that it's realism in the future this time... it's a primary goal.







PERFECT DARK

Developed by the team responsible for *GoldenEye*, *Perfect Dark* is Rare's second first-person perspective project. Set in 2023, a young covert operative named Joanna Dark uncovers a conspiracy stemming hundreds of light years. Her journey to reveal the truth will take players from Chicago skyscrapers to underground laboratories, secret army installations and alien shipwrecks.

In addition to the show's three minute video presentation, **Edge** was given the opportunity to play two of its levels. The game currently runs on an improved *GoldenEye* engine and even after nine months' development, the enhancements are clearly noticeable. The overall speed has been improved despite the fact that the environments are now more ambitious, with better detailed textures. Other graphical ameliorations include some very impressive lighting and reflection effects within the widely differing environments.

The most obvious gameplay addition at this stage is the ability to grab and move certain objects, as well as using a futuristic hover bike to speed around certain levels. Also, the default gun incorporates an automatic targeting system and the enemies' AI seems more advanced. The music features some of the most evocative tunes **Edge** has heard on the N64 and the Pro-Logic soundtrack enhances the overall atmosphere of a potentially huge game.

Publisher: **Nintendo**
Developer: **Rare**







LEGEND OF ZELDA: OCARINA OF TIME






Having slipped several proposed launch dates already, it has been an agonising time for players awaiting what is arguably Miyamoto's most anticipated creation yet. However, the wait is not over – on the day prior to E3, NOA finally announced a US release date: November 23.

Zelda's popularity remains as high as ever. Together with Konami's *Metal Gear Solid*, queues of players patiently awaiting their chance to join Link on his quest were evident at all times during the show, despite the considerable number of *Zelda*-equipped N64s present on the Nintendo stand.

The delays have enabled competitors to catch up, and on a technical and graphical level, Rare's games were giving Nintendo's flagship title a run for its money. *Zelda*'s potential remains undiminished, though, and indications still point to a title capable of delivering a videogaming experience unlike any other before it.

Publisher: **Nintendo**
Developer: **In-house**






Despite its too-brief video appearance, Rare's *Jet Force Gemini* looked highly impressive

BANJO-KAZOOIE






Due for review in next month's issue, Rare's visually-stunning *Mario*-esque contribution to the 3D platforming world was second only to *Zelda* when it came to grabbing the attention of Nintendo stand visitors.

Unlike *Mario*, however, players switch control between the eponymous double act. This enables the pair to reach certain parts of the large environments, and so successfully complete all of the different tasks by collecting several of the objects hidden around the levels. These are particularly impressive, with some sublimely detailed textures adding a wonderfully rich quality to the already accomplished scenery.

In typical Rare fashion, expect to find plenty of sub-games in addition to the main quest to keep players further occupied with what is already an immense game featuring some of the best graphics yet seen on Nintendo's 64bit machine.

Publisher: **Nintendo**
Developer: **Rare**



F1 World Grand Prix

Publisher: **Video System** Developer: **Paradigm**

Paradigm's *F1* adaptation is technically accomplished and proved very playable, too. All 17 circuits and teams are currently available, although licensing has not yet been finalised. Has the N64 found its racing title?



Star Wars: Rogue Squadron

Publisher: **LucasArts** Developer: **Factor 5**

LucasArts' second attempt at developing a worthy *Star Wars*-inspired N64 title sees players taking on the role of a certain Luke Skywalker before engaging in a series of wide-ranging missions over a variety of regions.





SHOWTALK DAVID DIENSTBIER, TUROK 2 PROJECT LEADER, IGUANA



Edge: Would you say you've been influenced more by console first-person games than those on the PC?
DD: There's kind of a console feel about the way we break people into what they're supposed to be doing, but we pay attention to everything – I mean it would be stupid not to, especially as those two markets seem to be converging a little bit. So a game like *Unreal* or *Quake2* can have a tremendous impact. I'd be lying if I said that *GoldenEye*'s success didn't influence us in some way because it certainly did. So yeah, we pay very close attention to what everyone's doing. I've been having fun with *Unreal* – I love it.

Edge: What was the major objective behind this sequel?
DD: Well, the first thing about doing a sequel is that it's a scarier proposition than doing the original because typically, I don't find that people do sequels well. There are too many sequels that I've played that I wish I hadn't or that I was done with in ten minutes. So we wanted to take everything that people liked about *Turok*, give them more of that, then fix everything that was broken and add some new stuff. Or a lot of it you're kind of going on the faith that's it's going to work out because you set technical goals and start doing design work based around technology that doesn't exist yet, and if something doesn't end up working out then you've got to redesign around potential problems. You always set your sights higher than what you end up getting. So we aimed really, really high – we wanted the action, we wanted the content, we wanted the mission objectives, we wanted cinematics and storyline, and at the end of the day some of that may have to go.

Edge: What main things did you want to avoid?
DD: The first thing we did was put in an alternative control method for everyone, because even though I prefer our control method on any game of this type – give me anything on the N64 and I'm playing it like that or I'm not playing it – who am I to tell everybody else how they're supposed to play their game? The second thing was simple gameplay elements – people don't like to jump much and when they do, they don't like to die if you miss the jump by millimetres. So we took a lot of that out and made it a lot more player friendly. Then, of course, the first thing we were obviously going to do was to give a lot of priority to our weaponry because I think that was one of the most influential things that we did with *Turok*. No matter what someone says about the game or how it played, two levels into it they loved the weapons. So our weapons are back and this time they do very different things – we do have a new Nuke and it's very cool, but we have weapons that affect enemies in certain ways. For example, the tranquilliser gun is not so much a weapon as it is a tool. If you have a pressure pad that activates a doorway leading to a bonus area or something, then maybe the only way to get there is to tranquillise the enemy that's standing on it because he holds the door open for you. This adds a new twist to certain areas of the game, so it's not just a case of walking around shooting things but it actually makes you think a little bit.

Edge: That's more of a cerebral *GoldenEye* approach rather than the all-out action of most first-person shoot 'em ups...
DD: Well, we like that and there's plenty of it in our game. But it would be a mistake for us to lose the people that bought and enjoyed *Turok* – they loved it but complained there wasn't enough action. We want to be a little more arcade-like with our action but we want to make sure that there's enough things to do and different ways of doing them that makes it more interesting as you keep going. So part of it is very action oriented, but there are certain things that you just can't accomplish if that's all you do. But again we're careful about balancing what's going on so that if you do make a mistake, it doesn't sacrifice the whole game – it just means that if you want access to a bonus area, or a new weapon, you've gone about it the wrong way. It doesn't necessarily mean the game's over until you do it right.

Edge: Do you find balancing those elements is the hardest thing to achieve?
DD: Of course. It's what takes the most time. It really is very, very difficult to do. And with a lot of games that are otherwise perfectly solid, you'd find that if they'd had a couple more months to sort that out, play with it and tweak it, it would have made all the difference in the world. And that's always the thing that scares you the most, are you going to have enough time to shine the hell out of something? So you try to make more hours in the day to do it.

Edge: Have you used any motion capture for the characters?
DD: No, the reason why we didn't use any motion capture this time is because we don't have any humans in the game. And if you make a human being pretend to be a lizard running through the world, when you get the motion capture of the game you tend to get what looks a lot like a guy pretending to be a lizard man in a costume. If you notice the way that those guys are running in the game they actually kind of gallop – they're bent way over and their legs are slapping on the ground and it means we can rotate their legs out at an angle that a human being can't run at.

Edge: So what styles of animation have you put into the game this time?
DD: The big green lizard guy, for example, has this huge ion cannon on his hand. When he runs that arm doesn't bend – it stays low because it's heavy – the other arm comes up and he kind of leans over to one side. That's very cool. Also, the different creatures move differently – it just adds a lot more to the game and it really means that it doesn't look like a guy in a suit.

Edge: What was the team's reaction to *GoldenEye*?
DD: Everybody loves *GoldenEye*. I've got a bunch of *GoldenEye* junkies on our game but again we consider that an entirely different game. It would be a mistake for us to try and out-*GoldenEye* *GoldenEye* – they've done that so well. We have something different going on that a million-plus people have really liked and we don't think it would be appropriate to change direction. But what we did do – I mean damn straight, I'm a huge fan of that game – is that we learnt lessons from it. Mission objectives are very important – people love the sense of accomplishment. It really makes people more compelled to go back through the levels again, especially if you do stuff like maybe keep track of how long it took you to do it, or something. So we've got that in there, but it doesn't lose the appeal that *Turok* had which means that you get the violence, you get the shooting, you get the action, you get the kind of 'man with the gun' mentality going through there, and it's fun.

TUROK 2: SEEDS OF EVIL

Shown by appointment only, Iguana's *Turok 2* was looking promising. An enhanced 3D engine, new enemies with improved AI and animation routines, realtime lighting and a better selection of weapons, all supported claims that this isn't a lazy, hastily-developed sequel attempting to surf the success of its predecessor. In fact, having taken the time to listen to criticisms from *Turok* owners, several of the original's frustrating aspects, such as jumping from one toothpick-sized pole to another, have been removed.

The overall look is now significantly darker and more menacing than the original, and each of the game's eight levels differ greatly from one to the next. The emphasis this time around is also very much on action, with a far greater number of enemies within each locale needing to be neutralised. The major addition however, is the *GoldenEye*-inspired multiplayer mode allowing four individuals to take part in team play, deathmatches and a new game currently known as 'Frag Tag'.

Publisher: **Acclaim**
Developer: **Iguana**





Wipeout 64

Publisher: Sony Music Entertainment Developer: Psygnosis

The previously PlayStation-only, futuristic racer has now emerged on Nintendo's 64bit machine with little to show for it except for a four-player splitscreen mode. Strategically, Sony itself will publish the title in the UK.



Survivor Day One

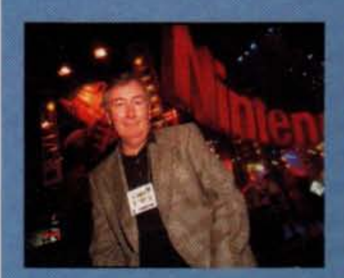
Publisher: Konami Developer: In-house

Waking suddenly from cryogenic sleep, players must find a way to escape the slowly sinking ship they find themselves trapped in before it's too late. Konami's surprise N64 offering was looking decidedly early...





SHOWTALK HOWARD LINCOLN, CHAIRMAN, NINTENDO OF AMERICA



Edge: Sega has just announced Dreamcast and yet another generation of hardware is on its way. What do you think of the company's strategy?
HL: Well, I'm not sure I really know what their strategy is. I think certainly they face some very difficult hurdles to overcome, for example, their relations with the retailers, their relations with gamers and their relations with third-party publishers. I would assume that one of their strategies is to try is to wrap themselves in Microsoft, but I think most people, including retailers and gamers and publishers, are going to know that this is a Sega product, so I think they've got formidable obstacles for this market, the US market. But I think that it really is completely dependent upon how good the initial software from Sega is. If it's really exceptional, then I think they have a chance. If it's not, then I don't think they do.
Edge: Okay, so technology isn't an issue?
HL: It really doesn't have much to do with the technology, which, you know, looks very interesting, but all new technology looks interesting. I don't think there is any technological advantage that Nintendo or Sony can't match and they are going up against two systems that are going to have huge installed bases. So it's going to be a real challenge for them but they have a history of making great games and I wish them well.
Edge: Okay. Now the main concern with Nintendo's presence at E3 has got to be the poor situation with third-party software – it's still not up to the levels of Nintendo and Rare's first and second-party stuff...
HL: I think it's getting better. I'm encouraged. I think, particularly in the sports arena, the kind of quality of football games that Acclaim, EA and Midway are bringing out, I think that's positive. I think there is some other third-party software that looks really outstanding, for example, *Turok 2*. So I think that it is improving overall and that there is some exceptional third-party software that will help us in the end half of 1998.
Edge: *Zelda* is going to come out in Japan before Christmas, and it's going to come out in the US before Christmas. It's probably the closest to a simultaneous release that Nintendo's ever done. How much of a problem does that present?
HL: I think our plan is to do the translation as Mr Miyamoto finishes up the game in Japan. I don't think we can really wait until the game is complete to do that. So that's the plan. Hopefully, it will not present a problem.
Edge: Just how confident are you (and Shigeru Miyamoto) that it will ship on time in the US?
HL: I'm quite confident that we're not going to have any delay problems whatsoever with *Zelda*. I mean, you know, he (Miyamoto) knows, and we all know that this is a critical title and that it has a critical date for release, November 23, so I have a high degree of confidence that it's going to ship on time.

TWELVE TALES: CONKER 64









Created by a team largely composed of ex-Killer Instinct developers, *Twelve Tales'* cute, vibrant world is more akin to Rare's other release, *Banjo-Kazooie*, than the company's popular beat 'em up series. However, the game's creators are only too keen to emphasise the aspects likely to differentiate their product from their own in-house competitors.

As such, *Twelve Tales* is being described as an interactive cartoon with its two protagonists, Conker and Berri, displaying a range of emotional responses depending on their surroundings, with a number of facial expressions to match – both react according to the danger level in their proximity. This revolutionary system has also been implemented into their adversaries' behaviour, which should give further support to Rare's attempt at recreating a cartoon-like experience.

Other features include two-player co-operative and four-player deathmatch modes, and significantly different one-player adventures depending on which of the two characters is chosen.

As with all of Rare's recent titles, graphically at least, *Conker 64* has very little to fear at the moment.

Publisher: **Rare**
Developer: **In-house**

▶







Disappointingly, Konami's highly anticipated N64 *Castlevania* only made it onto video

Hybrid Heaven

Publisher: **Konami** Developer: **In-house**

Players must save a kidnapped president. As the story unfolds, the main character's appearance and abilities change. This remains one of the more promising third-party titles. Due early 1999 in the US.



The most promising Nintendo games at E3

1. **Zelda** Guaranteed to wipe the floor with all comers. Spectacular
2. **Turok 2** Fans of the original should love the much-tweaked sequel
3. **Perfect Dark** Rare is keeping quiet at the moment but expect something very special indeed
4. **Body Harvest** DMA's time travelling adventure could prove an enthralling experience
5. **Jet Force Gemini** Beautiful third-person action fest from one of the premier N64 developers











Acclaim's *Extreme G 2* attempts to rectify many of the faults levelled at the title's predecessor

F-ZERO X









Nintendo's *F-Zero X* is one of the fastest racing videogames ever to grace a console. Furthermore, a constant 60fps update make it one of the smoothest, too.

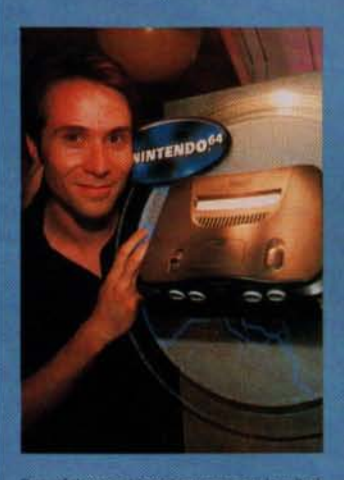
Out at the end of August in the US, (July 14 – Japan) the game sacrifices complex backgrounds in favour of speed, fluidity and the ability to have 30 futuristic hovering vehicles on the screen at any one time. Nevertheless, the relentless ontrack action allows little more than a cursory glance at the simplistic environment and as such, the latter play a far less significant part than in previous racing titles.

In terms of playability, *F-Zero X* proves more accessible than its original 16bit counterpart, with the majority of players easily getting to grips with the basic controls and finishing in the top ten within a couple of attempts.

In addition to a generic options list, the four-player splitscreen mode retains the speed and frame rate of the single-player game and proved a particularly popular alternative among the E3 crowd. Rumble Pak compatibility heightens the experience while completing the package.

Publisher: **Nintendo**
Developer: **In-house**

SHOWTALK MARK DELOURA, SOFTWARE ENGINEER, NINTENDO OF AMERICA



One of the most common reasons levelled at the poor quality of third party N64 releases is a lack of low-level development tools. With developers constantly bemoaning the lack of advanced development resources, **Edge** put this argument to Nintendo at E3...

Edge: What advances in N64 development have you seen at the show?

MDL: I think we're seeing a lot more realistic stuff, more fluid motion. As the developers get more of a handle on the N64, they bring the subtlety to it. Before they were more concerned with the technical side of things, like really getting a handle on the system, and now they've got that totally dealt with. Now they're more concerned with making animation look smoother and making the worlds look more convincing.

Edge: Okay, that's true perhaps of 'privileged' developers but simply walking around the stand here it's clear that some third-parties are still having trouble harnessing the power of the machine...

MDL: Definitely, in the past, especially with Super Nintendo we've been known for not giving information to developers as much as we should. But when the N64 came out we were given a mandate to change that, and we got the funding to support the developers making games. We're bulking up our group to provide more and more support, we've got a developers Website now, and anything we can do to help a third-party developer we're going to do. We're totally open now.

Edge: But you're not 'totally open'. What kind of sharing of information is there between the US and Japan.

MDL: The structure of the organisation of Nintendo is such that a game like *Zelda* is being made by EAD. There's R&D3 which does most of the Nintendo 64 stuff. They developed the microcode or the libraries for the machine and they can work really closely with EAD. They'll work together during the course of a project to produce new libraries and new graphics. It's simply the nature of the beast – because they're the same company – it means they can work closely together to create exactly what they are looking for. But as soon as they get that thing done in a version that works – they send it over to us and we ship it out to all the developers. For example, with *Yoshi's Story*, as soon as they finished developing the 2D libraries for that, they sent it out to everyone. Nintendo Japan told us explicitly that every game that's made in Japan, all the utilities, are shipped out to developers as soon as it's in a form that's ready.

Edge: Well that's not what we're hearing from developers at the moment...

MDL: Well, there's only one stopping point, one thing we don't give out and that's the microcodes development kit – and it's not generally available to developers right now. That's a decision Nintendo of Japan has made and we have actually made exceptions in rare cases...

Edge: Well, in Rare's case, most probably...

MDL: Yes, in Rare's, and there are definitely some third-parties that have it, too – but just a few.

Edge: So, you're confident that the third-party software situation will improve?

MDL: I think there are some really good third-party games out now. There's *Turok* 1 and 2, Midway's *Blitz* which I think is gorgeous and I also like *Forsaken*, Acclaim's *Major League Baseball* and *Extreme G 2*.



SONY: STRENGTH IN NUMBERS?

PLAYSTATION MAY DOMINATE THE MARKET, BUT E3 REVEALED A RELEASE SCHEDULE AWASH WITH LACKLUSTRE LAUNCHES

If big Spring PlayStation releases such as *Gran Turismo* and *Tekken 3* had been part of its late '98 onslaught and held back for an E3 debut, then Sony Computer Entertainment would have had all the ammunition it needed to finally show it can compete with the awesome development might of Nintendo. But once more, the PlayStation presence at E3 was characterised by the depressingly familiar motif of quantity, not quality. Only Konami's *Metal Gear Solid* proved to have the potential to take on any of the big titles on Nintendo's neighbouring stand – the majority of other PlayStation games on show displaying an unambitious approach to games development that now dogs Sony's machine, but shows little sign of denting its appeal in the uneducated and less discerning mass market. Typical of this was *Crash Bandicoot: Warped* – the third installment of Naughty Dog's marsupial outings – that still adopts a rudimentary run and jump approach, its linearity and derivative content well disguised by the application of dazzling 3D effects. As with many PlayStation titles, *Crash* 3 should win over the graphics fans, but those with a hearty gaming appetite will have pangs for a more meaty proposition.



This could be provided by SCEA's biggest new title, *Spyro the Dragon*. This vast, free-roaming affair will inevitably draw comparisons to Nintendo's 1996 flagship platformer, if only because its levels are open and free-roaming. Other action games hogging valuable space on Sony's stand included *The Fifth Element*, *Tombi* (previously 'Tomba'), *Klonoa* and *MediEvil*, the latter a *Ghosts 'n' Goblins*-themed 3D action title by SCE Cambridge.

Among the titles vying for the attentions of more serious gameheads at E3 was *Legacy of Kain* sequel, *Soul Reaver*, a dark but stunning platformer from Crystal Dynamics (even titled like an underground, imported Japanese game), and the deliciously eerie *Silent Hill*. This *Resident Evil* homage, from a fledgling internal Konami team, employs moving, realtime environments and a suite of subtle atmospherics that could give even the most unshakeable players nightmares.

There were, of course, dozens of other titles to be found offsite from Sony's corporate sanctuary. *Duke Nukem: Time to Kill*, *Pac-Man 3D* and forthcoming movie licenses, *Small Soldiers* and *Tomorrow Never Dies* were just a few of the titles destined for success, irrespective of their final quality. But with many third-parties already suffering in an over-congested marketplace, Sony's 'safety in numbers' publishing strategy could do well to start employing some measured quality control. And soon.

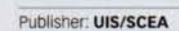


SPYRO THE DRAGON



It's two years since *Super Mario 64* first hit Nintendo's machine, and despite a horde of 3D platformers having been released for Sony's machine, not a single one has yet come close to stealing *Mario*'s thunder. The hugely successful *Crash Bandicoot* series (which has already sold over five million copies worldwide) hardly qualifies with its 2.5D channelled gameplay, being a far call from the expansive and imaginative environments of Nintendo's flagship title.

Enter *Spyro the Dragon*, the latest US-developed and much hyped 3D platformer by Insomniac games and Universal Interactive Studios. Foremost a technical showcase, *Spyro* does at least contain some gloriously huge gamescapes that unravel effortlessly with scenic 'pop-up' cleverly masked, and a free-roaming gameplay style intact. However, **Edge** feels it's a game tailored very much for American taste, so it's unlikely that Miyamoto-san will be losing *too* much sleep just yet...



Publisher: **UIS/SCEA**

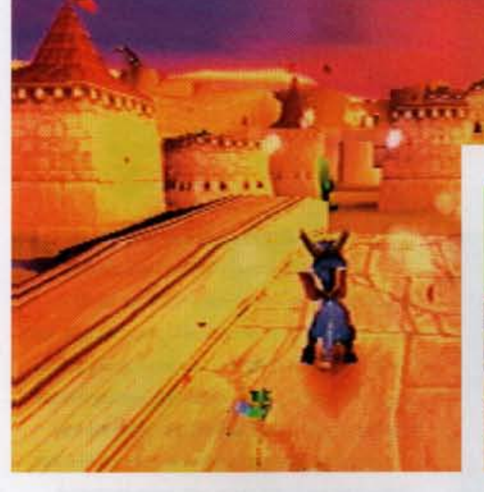
Developer: **Insomniac Games**







Will *Spyro* succeed where that other reptilian *Mario* clone, *Croc*, failed?

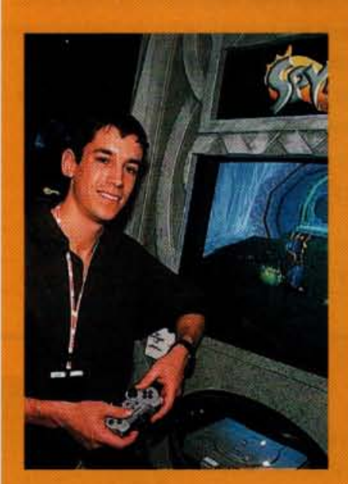








SHOWTALK TED PRICE, PRESIDENT, INSOMNIAC GAMES



Insomniac debuted on the PlayStation in 1996 with its slick but limited first-person, *Doom*-style shoot 'em up *Disruptor*. *Spyro the Dragon* is its second project and has the potential to become another big-selling US title to follow in the footsteps of Naughty Dog's *Crash Bandicoot*. **Edge** spoke to president Ted Price.

Edge: When did work commence on *Spyro* and who's behind it?

TP: There have been a lot of people working on this game since we started it back in January1997. We've now got 12 people at Insomniac and three people at Universal working on it, and we've also had some outside help such as Charles Zimbalis who actually designed the character (as well as *Crash Bandicoot*), Mark Cerney (creator of the *Marble Madness* coin-op and co-developer of *Crash Bandicoot*), our animator Alain Mandron (of *Ecstatica* fame) and even Stuart Copeland from The Police who's doing the music.

Edge: What was the premise behind the title – to try and provide PlayStation owners with a *Mario 64*-style game?

TP: No, not at all, it's a very different style of game. I think everyone who designs a 3D character game owes a debt to *Mario* but we wanted to make something fun. The characters are doing a lot of things outside of *Spyro*'s realm and there's a lot of character interaction. It's a very different style of gameplay.

Edge: What aspect of the game are you most proud of?

TP: We're especially proud of the engine. One of the main impetuses was that Al Hastings here developed an engine that enables us to display these huge panoramic views. There's no fogging, nothing obscuring the polygons in the distance and because of that engine we were able to develop these very open environments which sets it apart from most of the games on the PlayStation. There are two other engines, in fact – one displays the characters and the other displays the sky – these are rotated polygons.

Edge: Is the title being targeted at kids like a lot of PlayStation platformers?

TP: No, we actually set out to make a game that we liked and that crossed all genres. We found that adult men, women and kids liked it equally.

Edge: What's of most interest to you at E3?

TP: I'm looking forward to seeing *Crash 3*, I'm really looking forward to seeing the PlayStation in its mature phase, seeing how developers are maxing out the PlayStation's performance – I think this is the year that we'll see the max.

Edge: Are you interested in what Nintendo's doing?

TP: Oh yeah, always. We're interested in all platforms from a development perspective.



LEGACY OF KAIN: SOUL REAVER













The most immediately striking aspect of Crystal Dynamics' sequel has to be the quality of its semi-hi-res visuals decorating the game's fluid 3D environment. Not only do they represent a significant improvement over this title's predecessor, but they're accomplished enough to put it ahead of the more aesthetic forthcoming PlayStation releases.

Unlike many of those, however, *Legacy of Kain* is also likely to boast gameplay to match its visual flair. Set for an October release in Japan, players negotiate disturbingly gothic levels, solve puzzles and feed on the souls of a multitude of vanquished vampire-like beings while attempting to unravel the mysteries of Nosgoth. Two interesting features include the main character's ability to glide and the game's use of continuous data-streaming, allowing the game to be played without the need for play-disruptive loading screens.

Publisher: **Crystal Dynamics**
Developer: **In-house**

CRASH BANDICOOT: WARPED





If the gameplay matches the quality of its FMV, Konami's *Silent Hill* should be an essential purchase









This time around, Crash must face his old nemesis Dr Neo Cortex, who has come to the conclusion that only time travel holds the key to successfully destroying the planet. Unsurprisingly, then, Crash must battle his minions across a variety of eras going back as far as the Jurassic age, passing through medieval England and ancient Egypt along the way.

Graphically, *Warped* represents a substantial step forward for the *Crash* series with some impressive effects. Other improvements include a wider variety of moves which become available as players progress through to later levels. More importantly, however, the developer is keen to emphasise that this latest installment is not a simple copy of its predecessor. The orange marsupial can now interact more with his surrounding environment, and greater path deviation is possible. As *Crash 3* is currently pencilled in for a December release, the franchise is unlikely to lose out.

Publisher: **UIS/SCEA**
Developer: **Naughty Dog**

Kensei: Sacred Fist

Publisher: **Konami** Developer: **In-house**

Tekken 3's indomitable market status hasn't dissuaded Konami from joining the beat 'em up fray. It's first PlayStation fighter is in the early stages of development but is already running at a silky smooth 60fps.



Rival Schools: United by Fate

Publisher: **Capcom** Developer: **In-house**

As well as a second *Street Fighter II* compilation, Capcom revealed a conversion of its recent System 11 coin--op beat 'em up. A translation of *Plasma Sword* (*Star Gladiator 2*) is also destined for the PlayStation.





NINJA: SHADOW OF DARKNESS









Drawn into a dark world, populated by demonic creatures, axe-yielding adversaries and a host of other unpleasant foes, players must fight their way through several eastern-influenced interior and exterior settings as Kurosawa, a young ninja caught within a plot-driven 3D action adventure.

The game is divided into four levels, each of which is further sectioned into three segments. Thankfully, the youthful Kurosawa boasts a healthy repertoire of moves as well as a welcome array of weapons and spells with which to defeat his demonic opponents, gaining valuable strength and magic with each victory.

The game's backgrounds currently look suitably detailed while the camera system works well, offering a playable view of the action at all times. Crucially, the fighting engine works better than *Fighting Force*'s (Core's previous 3D combat outing), with action sequences proving far less awkward and frustrating.

Publisher: **Eidos**

Developer: **Core Design**





SCEE's *MediEvil* will hopefully balance its lavish visuals with a healthy dose of decent gameplay

TOMB RAIDER 3



Publisher: **Eidos**

Developer: **Core Design**

The latest episode of the *Tomb Raider* franchise offers players four new adventures as they control the intrepid Ms Croft through another set of world-spanning, exotic locations such as an Indian desert and the tropical islands of the South Pacific.

The reworked graphic engine now offers richer amounts of environmental detail which is further made evident by the PlayStation version's use of the hi-res mode. A new reflection system allows for more realistic shadows and transparencies and new weather effects such as rain, snow and fire have been implemented, together with improved lighting. Other additions include improved enemy AI as well as Dual Shock compatibility for PlayStation owners.

The E3 version on the Eidos and Sony stands attracted much attention from visitors eager to get their hands on Lara's new exploits. From the demo, **Edge** found it hard to distinguish *3* from the last outing, but hopes Core has concentrated enough on genuine gameplay improvements rather than opted for the commercial assurance of a lazily-developed sequel.





***Cool Boarders 3* has a reworked engine, offers over 36 new courses and link cable compatibility**

Syphon Filter

Publisher: **SCEA** Developer: **In-house**

Sony's hastily-developed espionage affair is little more than a third-rate *Metal Gear Solid* clone incorporating elements of *GoldenEye* yet lacking the finesse of either of the titles it attempts to imitate.



The most promising PlayStation games at E3

1. **Metal Gear Solid** Same demo as at the Tokyo Game Show, but enough to convince the West
2. **Silent Hill** Konami's game could well eclipse the *Resident Evil* series. Incredible CGI, too
3. **Legacy of Kain: Soul Reaver** A very popular E3 appearance and a much-improved sequel
4. **Spyro the Dragon** Insomniac's graphical tour de force has vast, open levels – unlike *Crash*
5. **Colony Wars: Vendetta** Psygnosis is no stranger to pushing the PlayStation chipset




e3
PC



THE PC POPULOUS

DESPITE HER UBIQUITOUS PRESENCE AT THE SHOW, LARA CROFT WAS OLD NEWS FOR PC GAMERS SPOILT BY A WEALTH OF NEW TALENT

Without any equivalent to the carefully planned superstands of Sony, Sega and Nintendo, the PC defies hasty evaluation at E3. Hundreds of games from dozens of publishers can easily overwhelm and mislead the casual onlooker. Yet the platform boasted arguably the greatest volume of impressive titles at this year's E3 – although not necessarily the very best. It also played host to the largest number of previously unseen debuts.

With no publisher dominating the PC (a healthy sign when compared to, say, the N64's elite trio of NCL, Rare and Acclaim) nearly every stand warranted a visit. If pushed, GT Interactive would probably have won the show for PC fans, with an armada of behind-closed-doors titles led by *Prey*, *Duke Nukem Forever*, *TA: Kingdoms* and Ron Gilbert's *Good and Evil* (not to mention more of the lamentable *Deer Hunter* franchise). Elsewhere, EA Sports remains unrivalled as a whole, and Eidos finally looks like proving more than a one-woman-wonder.

Trends? 3D acceleration is now ubiquitous. Strategy games are the more surprising beneficiaries, with a host of titles (such as *Hostile Waters*, *Dark Reign II*, *Wargasm* and *Tartan Army*) growing beyond their humble top-down beginnings to reach dazzling 3D heights. First-person shooters continue to dominate, but at least a few developers are working on more than *Quake* resprays. Similarly, there were plenty of totally new games as well as sequels at E3. Doubtless it's the latter that will continue to garner most sales, but nevertheless, the gaggle of debutantes demonstrate that the PC remains the natural bedfellow of innovation. ▶









PC games unveiled at E3 included (from the top) *Giants*, *Homeworld*, *Rayman 2*, *Driver*





GIANTS



Don't be deceived by its distracting looks – the graphically sumptuous *Giants* could well blossom into a great game. It is the work of Planet Moon, renegades from Shiny's *MDK* team who want to create a milestone multiplayer game. *Giants* features three vastly different races who have each mastered an element of their world – either land, sea or air.

The most impressive creature is the game's eponymous landlocked giant, whose legs alone fill the screen. Less daunting are the little humanoids who swarm over the islands which can be harvested for snacks. *Giants'* seemingly endless 3D landscapes are deformable, enabling players to literally blast the ground from beneath their opponent's feet.

Publisher: **Interplay**
Developer: **Planet Moon**

INDIANA JONES AND THE INFERNAL MACHINE















'Indiana Jones defines the very notion of an action hero, perfect for a game,' says LucasArts project leader **Hal Barwood**. Core Design clearly felt the same way. Lara Croft might be all woman, but that's only half her charm. Now LucasArts is claiming tomb raiding back. Set in 1947, *The Infernal Machine* sees the player scouring the world for the Tower of Babel. Indy will be wielding his whip, along with pistols, bazookas and satchel charges. Drawing on its cinematic roots, highlights include white-water rafting and rides on the ubiquitous mine car. Sounds great on paper – but LucasArts has been notoriously inconsistent with its film licenses before.

Publisher: **LucasArts**
Developer: **In-house**

Prax War

Publisher: Electronic Arts Developer: Rebel Boat Rocker
The work of ex-*Duke Nukem* programmers, *Prax War* is the closest thing yet on the PC to *GoldenEye*. Very early, but the outside scenes were impressive.



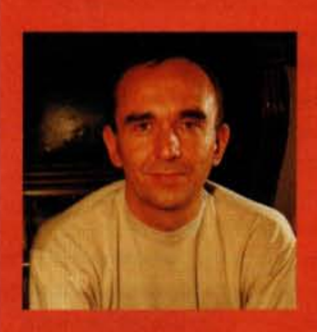
Force Commander

Publisher: LucasArts Developer: In-house
Attempting to make up for the lamentable *Supremacy*, LucasArts is having a second crack at a *Star Wars* realtime strategy game. Real 3D with over 100 units are promised.





SHOWTALK PETER MOLYNEUX, CEO, LIONHEAD



The legendary developer talks to **Edge** about what he admits is 'his most important game ever'...

Edge: Isn't adding a skill element to spell-casting a risky exercise for a strategy game?
PM: It's a brave thing for us to do. Strategy games have always been played in exactly the same way. This does something different – it allows people to get good. I want people to feel powerful when they cast spells.
Edge: How does it change the game?
PM: Well, you might see someone else's hand, and see what it's holding. You might know I'm going to do a fire spell, but you don't know which one. All you know is that last time we played I was really good at casting 'walls of fire'.
Edge: You seem to see *Black and White* as a multiplayer game.
PM: You know I think multiplayer gaming is incredibly important, but it's not really moved on. *Quake* is amazing – it changed the world – but we can't stop there.
Edge: Did you think about enabling players to create more than one familiar here?
PM: Yeah. But it's hard to get people to care about more than one creature. It's an ongoing thing to train one up. And they can go wrong, too. If you abuse them, they'll end up crap.
Edge: Will we see *Black and White* on Dreamcast?
PM: Dreamcast looks sexy. It would be cool.
Edge: But could you do it without the mouse ?
PM: It doesn't matter. With these things, you're gesturing to make things happen – just like in *Street Fighter*. It should actually be easier.

BLACK AND WHITE

First off, the shot below is not an ingame screenshot but a mock-up. Still regretting *Dungeon Keeper*'s sprites, Molyneux is desperate to make a game which looks as great as it plays, but he'll probably need to wait for CPUs as well as Lionhead's artists to catch up with his ambitions. Journalists prepared to look beyond *Black and White*'s four-month-old wireframe mesh engine got a first look at one of the most interesting games at E3. In brief, as sorcerers, players gain power by winning converts either through violence or through benefices. As they do so, their realm alters according to their expansion and morals. Launching spells through deft flicks of the mouse, players will learn how to skillfully launch special attacks, just as in a fighting game. Players also create an A-life familiar, who fights and forages independently and grows stronger and visibly bigger with each victory.

Publisher: **Electronic Arts**
Developer: **Lionhead**



HOMEWORLD







While much of the development community waits for the processing power to make *C&C* in fully scaleable 3D, Relic has taken a shortcut and set it in space. The result was one of the most interesting games at E3, with 3D spacefleets clashing in realtime, controlled by drag-and-deploy mouse control. These screenshots fail to convey the essence of *Homeworld*. Think 'Battlestar Galactica', with the player as Commander Adama.

Publisher: **Sierra**
Developer: **Relic Entertainment**

Prey

Publisher: **GT Interactive** Developer: **3D Realms**

Detailed real life rooms and jaw-dropping portal technology (which display a live feed into other levels) are just two things setting this first-person shooter apart.



Delta Force

Publisher: **Nova Logic** Developer: **In-house**

Despite finally supporting 3D cards in its flight sims, Nova Logic is opting to update its Voxel Space engine for *Delta Force*, an infantry fighting game in the *Spec Ops* mode.





RAYMAN 2





Despite his creator moving on to make the remarkably similar *Tonic Trouble* (Prescreened in **E**57), *Rayman* found himself the surprising star attraction of many attendees. Certainly, as an interactive cartoon, *Rayman 2* makes *Mario 64* look like a late night Belgian art house short on BBC 2. Whether it will play quite so well won't be discovered until Christmas. *Rayman 2* certainly plunders many of Nintendo's tricks, and adds a few fresh ingredients of its own, such as a magic fist which also functions as a torch and a grapnel, and a host of friends who actively help the player complete his tasks.

Publisher: **UbiSoft**
Developer: **In-house**




ALIEN VS PREDATOR






Players select to be either an alien, predator or a space marine in this first-person shooter. The marine's motion tracker warns him of upcoming attacks, but his weapons are only moderately powerful. The predator is slow, but he can cloak himself and wields long-range guided weapons. **Edge**'s preference is the alien, who can run at stomach-churning speeds and climb the walls and ceilings. This game should bury the memory of Rebellion's lamentable Jaguar version, which, in retrospect, was too ambitious for its time.

Publisher: **Fox Interactive**
Developer: **Rebellion**

X-Com: Alliance

Publisher: Microprose Developer: In-house
Like its older sibling, *X-Com: Interceptor*, this unexpected title will place *X-Com* in a new dimension – enabling players to manage troops in 3D. Powered by the *Unreal* engine.



Total Annihilation: Kingdoms

Publisher: GT Interactive Developer: Cavedog
The *Total Annihilation* engine gets taken out again for swords and sorcery, and looks even prettier for it. Four uniquely different races complete the picture.





SHOWTALK LOUIS CASTLE, VICE PRESIDENT, WESTWOOD STUDIOS



Edge: What's it been like seeing all these games emerging that pay homage to *Dune II* and *C&C*?

LC: Well, I'm really excited to see how much interest there is, but I'm a little disappointed to see how little innovation there's been in the genre. We're re-releasing *Dune 2000* which is really a re-release of the first realtime strategy game as we know them and basically – with the exception of 3D graphics or 3D terrain with line-of-sight – there are no major differences. Hopefully, with *Tiberian Sun*, people will see what we're trying to do and it will make the whole battlefield dynamic and exciting.

Edge: How much potential is there for taking the genre into true 3D?

LC: I think there's a lot of potential, but I personally think the kind of presentation we're doing with the product is actually very suitable for the kind of game it is. Now there may be some great way of doing an interface that works – I haven't seen it yet. I've seen a lot of good 3D games and some games that really aren't the same that worked okay, like *Battlezone*, but the kind of game we're portraying with *Tiberian Sun* I haven't seen done well in 3D.

Edge: So Westwood isn't interested in true 3D?

LC: It's something we're going to try in the future I think, but right now, the true 3D landscape that we have presented in that isometric view works out very nicely. You have all the effects of lighting and particles and terrain but at the same time you get really good performance on low-end systems and it's a very consistent way of delivering the visuals.

Edge: Have you noticed any trends emerging at this year's E3?

LC: Well I see lot of people creating 'knock-off' products and 'me-toos'. I'm a little disappointed because there doesn't seem to be enough real innovation in the industry, but on the other hand I understand what kind of pressures the publishers are under. The press says 'give me something new, give me something new' but when the publishers look at the numbers the consumers are saying 'give me that again, give me that again'. We're trying to find a nice balance at Westwood to make sure our products are similar enough to the previous ones so that people feel comfortable with them, but at the same time we want to introduce new elements to hopefully give them a little bit of spice and identity.

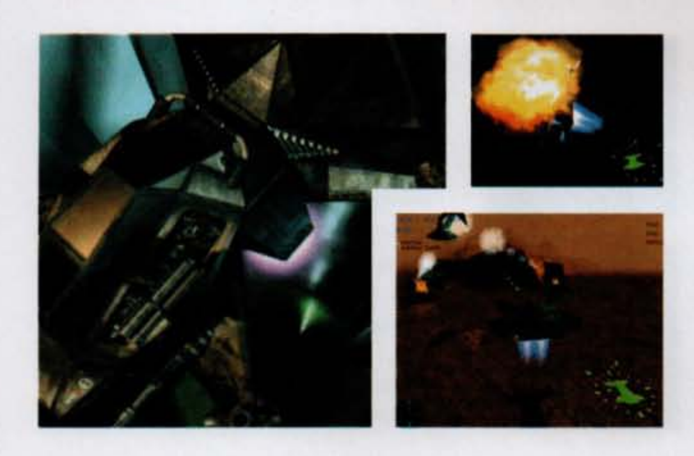
Edge: What are you excited about in gaming for the years ahead?

LC: I'm really excited about immersive environments. For me it's always been about putting somebody into a story. I emphasise the word 'story' because right now every environment I've seen that's been the slightest bit immersive has just been an environment – the story develops to justify the existence of the environment instead of something integral to the experience. So on the one side I'm really excited to see real physics, something where you strike a match and set fire to a crate – and the designer never thought you'd do that. That's really amazing to me. But at the same time I'm seeing a real lack of innovation and development of the story and characters.

Edge: Will that ever change?

LC: I think right now we're in a technology rush. There's *Unreal*, *Quake III*, *Prey*, there's all these products and you just think that some day there's going to be so many polys and such great lighting that it just doesn't matter. Then you have to come back to the story. As much as I love going out and blowing things up, it's not something that's going to keep me engrossed with my computer for hours. It's not going to stop me going to see a movie that night.

LANDER



Paying homage to *Lunar Lander*, Atari's classic gravity-and-inertia shoot 'em up (aka *Thrust* on the 8bit micros), *Lander* sees the player control a jet-powered craft, which can be tilted with the mouse, rotated with the keyboard, and thrust up into the air with a mouseclick. The levels progress with varying gravity levels changing how the ship handles. Psygnosis claims the craft flies according to data from NASA. Exclusively shown *Lander*, **Edge** found the game immensely relaxing. Bizarrely, the game is slated for a DVD-only release.

Publisher: **Psygnosis**

Developer: **In-house**

Dungeon Keeper II

Publisher: Electronic Arts Developer: Bullfrog

Bullfrog says it will be the definitive *Dungeon Keeper*. Aside from an overhauled graphics engine, it will offer more considered level progression and useful minions.



Supreme Snowboarding

Publisher: TBC Developer: Housemarque

The barely started *Supreme Snowboarding* is visually not far off Nintendo's *1080°*. Housemarque will need to hit the slopes as well as the C++ if it's to get the gameplay right.





PC

SHOWTALK
DAVID CAGE, DESIGNER, QUANTIC DREAM



Edge met with the confident French creator of *Omnikron*...

Edge: You've tried to blend two or three genres. Isn't that a little ambitious?
DC: Well, the aim was not to make games together but to let the player do what he wants in a 3D world. That's the main goal.
Edge: Is the game linear?
DC: No, not at all. We spent a year trying to find a new way to write an interactive scenario. The player always has long-term goals, and a set of short-term goals. You can choose the order to complete goals. All your acts have consequences for your soul.
Edge: Is it true that you can die in *Omnikron*?
DC: Yes, that's probably the most original part of the game. We have something called 'virtual reincarnation'. When the body dies, the soul of the player is reincarnated into the soul of the first person who touches it. Different characters have different skills.
Edge: Won't the player just commit suicide?
DC: You improve your skills when you keep your character for a longer time, like an RPG.
Edge: Have you seen the way *Messiah* works? Taking over characters to kill others.
DC: *Oddworld* did the same thing. What we do is completely different. We've done a whole story around reincarnation.
Edge: If you do a game with all these different elements – doesn't every element have to be great?
DC: Well, with the combat, for example, we won't have a fighting game with the same depth as *Tekken 3*. What we'll have is fighting with less depth, but the same feeling.

OMNIKRON







Another in the emerging 'soul swapping' genre (along with *Silicon Valley* and *Messiah*), *Omnikron* is an ambitious adventure game where the player doesn't permanently die, but rather becomes the first person who touches his corpse. Thus the player will roam *Omnikron*'s different worlds as a wide variety of individuals, each with their own skills and talents. Packed *G-Police* cities with 3D beat 'em up elements and *Tomb Raider* shoot-outs complete the spec sheet.

Publisher: **Eidos Interactive**
Developer: **Quantic Dream**

SETTLERS III







Previous *Settlers* games have sold over one million copies. With its unusual marriage of economic simulation and cute graphics, *Settlers III* will continue to offer something different. German creator Blue Byte has decided to put more emphasis on combat for this incarnation and has also included religions for the first time. Several of the gods of the ancient world are featured, and can lend their mythic powers to the quests, including the Roman god Jupiter, the Egyptian deity Horus and Ch'ich-Yu, an Asian god.

Publisher: **Blue Byte**
Developer: **In-house**

DRAKAN







Remember the 1980s' 'DragonLance' novels? Surreal Software clearly does, and has long wanted to create a dragon-riding RPG. Set largely outdoors, Draken's relatively open-ended gameplay and the extra dimension provided by a winged firebreather might invigorate a genre still ruled by dungeons, not dragons. **Edge** hopes Surreal Software will keep working on that unappealing lead character though. With each iteration she's looking better – but then most people didn't see how she started out.

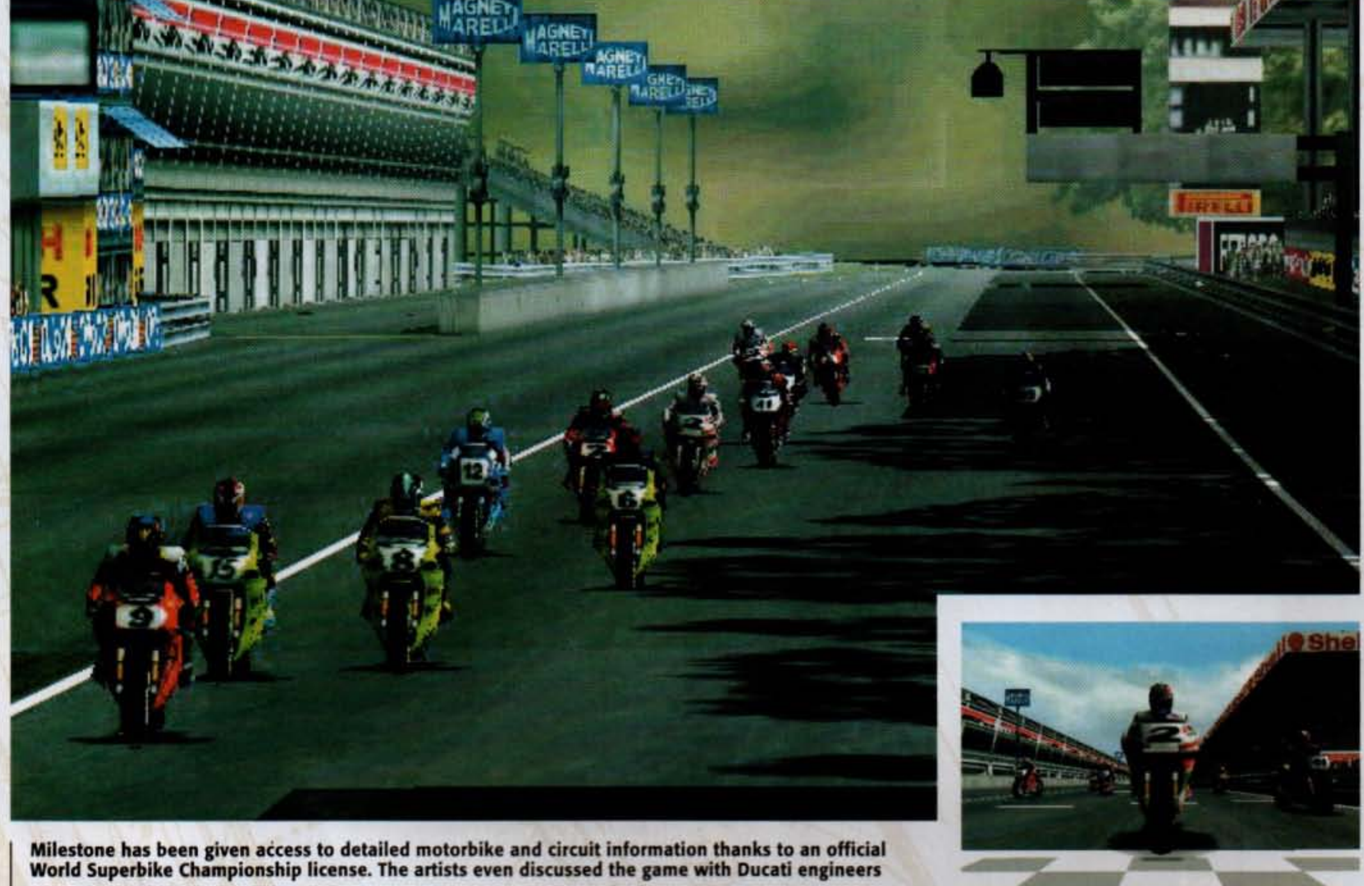
Publisher: **Psygnosis**
Developer: **Surreal Software**

The most promising PC games at E3

1. **Outcast** Why on earth did Infogrames keep this off the show floor?
2. **Homeworld** Potential epic, it's a great chance to do something new
3. **Messiah** More than just a pretty baby-face, but will need skilful level design
4. **Rayman 2** Stunningly attractive, great multicoloured hope for PC platform fans
5. **Black and White** For the ideas and ambition alone (and the 200foot-high sheep)







Milestone has been given access to detailed motorbike and circuit information thanks to an official World Superbike Championship license. The artists even discussed the game with Ducati engineers

SUPERBIKES WORLD CHAMPIONSHIP

With a heritage steeped in enviable style, it is not surprising that the Italian Milestone team is set to make a splash in an underexploited genre with a serious motorbike sim

Format: **PlayStation, PC**

Publisher: **Virgin**

Developer: **Milestone**

Release: **September**

Origin: **Italy**

In a crumbling backstreet office just minutes from the centre of fashionable Milan, Milestone is currently putting the finishing touches to something very unusual in the videogame industry: a serious motorbike racing sim. The shelves of Electronics Boutiques everywhere may be straining under the weight of so many driving games, but few developers have attempted to replicate this exhilarating sport. In fact, Milestone's managing director, Antonio Farina, reckons the last one was Microprose's *RVF Honda* back in the late 1980s. *Superbike World Championship*, then, is forging headlong into virtually new territory.

But taking modest creative risks is something of a habit for Milestone. Established in 1994, the company released a fair first-person shoot 'em up (*Iron Assault*) almost simultaneously with *Doom*, and then a year later, pitched its passable PC racer *Screamer* against the likes of *Ridge Racer* and *Daytona*. Nowadays, of course, racing games are common fare – thanks to high-spec Pentiums and 3D cards. *Screamer*, however, ran in software on a 486.

Despite its limits, the title was a success and has set the course for Milestone over the last three years. The company's previous two titles – *Screamer 2* and *Screamer Rally* – continued the legacy of the original title, but also capitalised on PC graphics to provide visually stunning fare, capable of running head-to-head with the finest from Namco and Sega. Along the way, Milestone has developed a keen understanding of racing gameplay and the subtleties of handling that lurk beneath the eye-candy of modern racing coin-ops. Perhaps this is why the 17-strong team felt confident enough to attempt this elusive racing subgenre.

But why has there been such a long-running hiatus on motorbike games? Producer, **Marcus Iremonger** reckons it's all down to the extra effort needed to simulate bike physics, 'it takes a considerable amount of study, effort and trial and error to model a motorcycle so that it feels realistic and yet is still fun to play. The first thing we did was throw away everything we had learned and used in the *Screamer* games. Car physics and bike physics are similar in some ways but have several major differences. It was only by starting from scratch that we could ensure our physics were not based on that of a two-wheeled car, as has been the case for many of the previous bike-based games'.

This concern for realism is more than evident in the gameplay. As soon as **Edge** took the controls of one of the five different motorcycles available in the game (each representing one of the Superbike teams – see p58), it was clear





The replay mode provides interesting views of the racing



The game features all 18 riders and five manufacturers from the real championship



If serious racing starts to wane, players can pull wheelies and do tricks in arcade mode

an intuitive understating of two-wheel physics had been reached. Turning too quickly when the bike is just beginning to move will result in the rider dismounting immediately – these bikes do not rock from side to side in an absurd gravity-defying manner as they do in, say, *Manx TT*.

At speed, too, players never forget they are on two wheels. The bikes cut and swerve dramatically across the asphalt with incredible sensitivity, making each race more of a fight for survival than a fight to keep the racing line. In corners, too, there's no charging in at high speed and expecting to bounce round on the barriers, or powersliding through the arc of the turn. Players have to know exactly when to apply the brakes. Like *Gran Turismo*, *Superbikes* appears as much a test of intelligence and empathy with the vehicle, as it is of arcade driving skills.

And this is by no lucky accident, as Iremonger points out, 'we spent six months studying motorcycle racing textbooks and videos to understand how bikes behave when pushed to the limits. It is this attention to detail that makes the difference. In addition, Ducati has provided us with technical data and access to the world's most successful Superbike teams and riders'.

Importantly, of course, this in-depth concern for authenticity permeates every level of the game. *SWC* features all 18 riders and 12 circuits from the actual championships, and to build the latter the artists have been given intricate topographic maps on each track. Throughout the development of the game the artists have also been working with two computers each – one showing the real data, the other showing the ingame circuit – allowing the realtime transference of data from one to the other. The simulated tracks represent exact, scaled models of the originals, and they also share the same scenery.

But the appearance of reality was not enough. As **Antonio Farina** points out, 'The final test was to take a virtual bike, put it on one of our virtual tracks and test the racing time. It came in with exactly the same time as a real bike would have on a genuine circuit'. Milestone is even providing the real course records in the game so players can have a go at beating them. As for the scenery – the company recently showed the game to two Superbike racers who recognised each course before the first turn.

THE BIKES CUT AND SWERVE DRAMATICALLY ACROSS THE ASPHALT WITH INCREDIBLE SENSITIVITY, MAKING EACH RACE MORE OF A FIGHT FOR SURVIVAL THAN A FIGHT TO KEEP THE RACING LINE





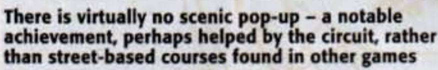


Players can adopt a rider's view of the track which provides an incredible feeling of speed, and slants when the bike leans









There is virtually no scenic pop-up – a notable achievement, perhaps helped by the circuit, rather than street-based courses found in other games





However, it is the bike design that will attract most interest from motorcycle fans. Again, they are unlikely to be disappointed – 'The bike models are highly complex both in 3D terms and texturing' confirms Iremonger, 'Over 600 polys are used to model the average bike and when the rider polys are added you get a model of 1,000-plus polys. Additionally, the bikes were modelled from the real machines and manufacturer-provided materials using SoftImage. Plus, the texturing of each bike and rider was painstakingly recreated from photos and videos. In fact the crash helmets, leathers and motorcycles of all 18 key riders have been recreated in minute detail'.

As you would expect from a sim, there is also a wealth of options to compliment the racing. Players can fiddle with the bike's suspension, brakes and tyres; they can even change the inclination of the front forks in order to adapt the distance between the tyres – the more sharp bends there are on the forthcoming circuit, the closer the tyres should be together. Weather conditions are also adaptable, and the programming team is working on a variety of views, including a nauseating, realistic angle from inside the rider's helmet.

However, Milestone acknowledges that a slavish adherence to realism does not necessarily mean a good game. Or a popular one. As Farina puts it, 'the most realistic sim in the world would be completely unplayable'. Indeed, playability has remained a prime concern throughout the development of the game. An arcade option has been added where all the bike setup options can be avoided, tricks can be performed and perhaps a few hidden elements can be unlocked. And the bike never crashes, either.

Arcade gamers who are up for the sim challenge haven't been ignored either. Milestone is putting together a tutorial section which teaches players what to do on each circuit, what the optimal lines are, when to brake and accelerate – a smart move considering how few of these games there are out there.



Such is the attention to detail here, players can even view replays from camera positions used in real television coverage of the events

Surprisingly, considering this wealth of visual and gameplay detail, *Superbike World Championship* starts its support at P133 with no acceleration, but includes D3D support for 3D cards, and may also include specialist support for 3Dfx. The game will also include facilities for all the usual PC multiplayer options like Serial, LAN and modem play, as well as 'theoretical support' for Internet play. The game is also being converted to the PlayStation and Milestone claims there have been no compromises with the visual data. Instead, the engine has been completely rewritten to take advantage of the machine's strengths.

From the start, Milestone's aim has been to recreate the entire Superbikes experience. The team went to the races, talked to engineers – it has even included a substantial multimedia component to the PC version of the game, detailing the history of the sport, and its competitors. It is clear there is an overwhelming enthusiasm for the project at the company, and if this can be translated into a playable game as well as a realistic one, this game should prove a worthy successor to the *Screamer* series. On the subject of realism, however, there was one area in which the company stopped short, as Farina admits, 'We thought about motion capturing the crashes, but it was difficult to find volunteers'. Perhaps for the sequel, then…

Kick Start

The World Superbike Championship began in 1988 as an annual event for production-line rather than custom motorcycles. Five manufacturers – Honda, Kawasaki, Yamaha, Suzuki and Ducati – support the events and there are twelve meets throughout the year, taking in circuits like Brands Hatch, Laguna Beach in the US and Phillip Island in Australia.

The popularity of the sport is growing fast, with the average attendance at Superbike events in 1997 numbering 22,000.

Events are shown regularly on Sky in the UK – perhaps thanks largely to the efforts of British Ducati rider, Carl Fogerty, several-times winner of the championship.

Milestone's game has been duly licensed by the sport's official governing body.

PURE DMA



A COMMITTED VISIONARY AND DEVELOPER OF SEMINAL TITLES SUCH AS LEMMINGS, HIRED GUNS AND GRAND THEFT AUTO, DMA DESIGN IS A RARE VIDEOGAMING BEAST. WITH PARENT COMPANY GREMLIN PROVIDING THE PUBLISHING MUSCLE, THE SCOTTISH CODEHOUSE INVITES EDGE TO WITNESS ITS BIGGEST EVER ASSAULT ON THE VIDEOGAMES MARKET

Faster Worm Slow is possibly the simplest videogame **Edge** has ever seen. In it, a solitary pixel glides across a dark *Pong*-like screen, its direction changed by a single button press to avoid a series of static blocks. There is no scrolling, there are no frames of animation and certainly no texture-mapped, Z-buffered 3D. It's as antiquated as videogaming can possibly get, and yet DMA's designers have been spending time playing around with it (and other rudimentary concepts), to further its own understanding of what makes gameplay work.

This deconstructive approach characterises the philosophy of a company that is actively encouraged to innovate and break the mould – either through exploiting new technology, but more often than not, irrespective of it. It typifies a dedication to a craft that has led to the creation of unconventional games that started with its 1991 puzzler game *Lemmings* and, more recently, its controversial hit-and-run crime fest *Grand Theft Auto*.

But times are changing at DMA, and following its inauguration into the Gremlin empire last year, a more streamlined, commercially efficient operation is in place. **Edge** is in Dundee to witness three titles scheduled to be released before the end of the year – *Body Harvest*, *Tanktjcs* and the previously unseen *Wild Metal Country*. And this is no codeshop cop-out either, but perhaps the best evidence yet of a company that has diversified without diluting its original vision. Pure DMA. ▶





The game's second timezone is set in Java, 1941. Depth cueing is used to admirable effect, creating a moody, brooding atmosphere

BODY HARVEST

Three years – and three versions – in the making, the N64 'launch title' *Body Harvest* is nearing completion. As DMA's **David Jones** puts it, 'Effectively we've done two games in one – the original and the sequel.'

Keen to sample the state of play, **Edge** interrupted the extensive polishing process that the game is undergoing before its release. Many of the changes that the title has been through are the result of Nintendo's close involvement in development, due to its original role as publisher. However, *Body Harvest* is now to be Gremlin's first N64 release. It's set to be a spectacular debut.

The game's scenario has remained intact throughout development: It's 2016. Alien invaders have harvested mankind to near-extinction, using humans as both food and genetic source material. Cue survivor Adam Drake, racing to get to a time machine that will catapult him back before the extra terrestrials' arrival. DMA has used an extensive realtime cut-scene to illustrate the story – a first for an N64 title.

The player passes through four distinct zones, each 25 years on from the last, starting in Greece in 1916. This stage, along with Java, America and Siberia which follow it, boasts a distinct collection of vehicles, buildings and characters, all of which can be interacted with. Vehicles (including boats, motorcycles, aircraft, tanks and cars) can be jumped into and driven about, and have a separate energy level to Drake's. Nintendo asked for RPG elements to be added when Adam enters buildings and meets characters, via which energy, clues and items such as access keys are gleaned. It was these additions that extended *Body Harvest*'s development time, but the trade-off is a greater sense of depth than in the game's previous, action-packed incarnations.

Having said that, it's clear from the outset that *Body Harvest* has more than enough visceral thrills to entertain trigger happy Nintendo fans. Guiding Adam around in the third-person, the player must gun down successive waves of alien invaders, which are out to devour the local populace. Blowing away the invaders results in a splattering of green blood – or red if Adam is hit in return. Both *Body Harvest* and the forthcoming *Turok 2* are precisely the type of game needed to raise the N64's profile among older gamers.


BOASTING OVER 40 HOURS OF GAMEPLAY, OVER A DOZEN WEAPONS, MORE VEHICLES THAN AN NCP CAR PARK, AND GALLONS OF GREEN BLOOD, IS BODY HARVEST THE N64'S NEW 'ADULT' ATTRACTION ?

Perhaps the most striking aspect to the title is the incredible size of the environments – and the structures, aliens, boss characters, missions and sub-missions. That *Body Harvest* fits on a 96Mbit cartridge should be enough to give a few PC programmers some sleepless nights...









DMA is planning to reduce the size of the onscreen energy bars for *Body Harvest*'s final release. However, foes will remain ominously big



WILD METAL COUNTRY

Recent name changes have seen DMA's latest creation dubbed the Amiga-esque *Exidium* and *Super Monkey Tank: Go* (a title **Edge** still favours). However, the chosen *Wild Metal Country* is a worthy moniker for an unusual and novel take on the tank battle genre.

The game is constructed around a neat physics-based animation system which often results in projectile impacts knocking the player's tank for six. It also adds a chaotic edge to the gameplay that would have been lacking if more traditional methods had been employed. Repeatedly battering opponents proves immensely satisfying, with tanks tumbling from hilltops and across plains. By holding down the fire key for longer, a shot's trajectory can be raised, sending shells bouncing towards enemies.

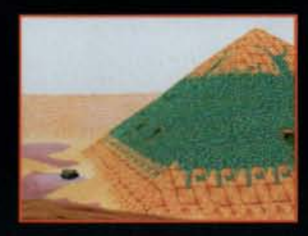
The action is viewed in the third-person, with distinct controls for the left and right caterpillar tracks – and for the turret. While not overwhelmingly complex, the key combinations required to turn take a slight mental adjustment, so a standard set-up using the cursor keys is destined for the final PC code. Controls for the N64 version are still being decided, but a *Turok*-style combination of movement on the C buttons and rotation on the stick seems likely.

A DMA game wouldn't fit into the company's portfolio without some unusual touches, and *Wild Metal Country* is no exception. Rather than dividing the various camps of enemy tanks into countries (real or imagined), each battalion is themed around different animals, such as rhinosceroses, ducks, bulls, and even budgies. However, the beasts are really only a starting point for the AI and graphic design of each group, a reference point to unify each style.

Creating believable artificial intelligence has been a key aspect to development, with the various factions able to engage in combat as the player's single tank looks on. While *Wild Metal Country* has obvious multiplayer appeal, DMA is hoping that the one-player game is just as involving. The two level designers on the project are working flat out, creating a series of missions and landscapes that require a variety of strategies for successful completion.

At the time of **Edge**'s visit, both the accelerated version and the PC software version of *Wild Metal Country* were fully playable, running remarkably smoothly. The game has been designed to run on relatively low-end PCs, with the base machine currently an unaccelerated P166. And come time of release, N64 owners will be treated to a simultaneous four-player version. Sadly, the PlayStation's CPU can't cope with the demands of DMA's physics engine. As for Dreamcast – no-one's saying...





As with all of DMA's PC titles, *Wild Metal Country* feels like a console game to play. The battle arenas are remarkably organic in their formation – with one or two notable exceptions (left)

3D PC TITLES HAVE BEEN TAKING THEMSELVES RATHER SERIOUSLY OF LATE. WILD METAL COUNTRY IS HERE TO REMIND THE GAMING WORLD THAT SOME OF LIFE'S PLEASURES LIE IN THE SIMPLEST OF PASTIMES











Both software and accelerated versions of *Wild Metal Country* prove highly playable, until opponents start hammering home the hits...



Pick 'n' mixing various components creates a huge selection of attack tanks, built from unlucky sheep



TANKTICS

Take one hovering magnet. Add a smattering of strategy, a soupcon of arcade action, a pinch of construction, a bucketful of hapless sheep – and *Tanktics* is born.

Like *Body Harvest*, *Tanktics* is themed across four time zones, from prehistoric to futuristic (no surprises there, then), with technology designed to suit each era. The player uses the magnet to gather resource material from around each of the isometric maps, using it to construct a series of attack tanks. Anything from boulders and sheep to opposing tanks can be dropped into the recycling machine, which pumps out a variety of components. Custom tank antics then ensue, as the player battles with opposing armies.

Tanktics has taken a long time to complete – development began around the same time as *GTA*. However, the game has retained a contemporary feel, despite running in only 256 colours at 640x480. The PlayStation version is also underway, although neither a link-up or split-screen two-player mode is likely to be included. It's a great shame, because *Tanktics* is a frantic experience, which may suit multiplayer gaming best of all. Whatever, DMA's game looks set to provide chaotic, console-style action that should bring a smile to even the most serious of PC gaming's exponents.







Each of the four time zones brings a fresh set of weapons, tank parts and map designs for the player to master. The settings – and sheep – can be destroyed

GBH

Grand Theft Auto: three words to strike fear into the hearts of even the most hardened censor. And judging by the little **Edge** could glean from DMA's tight-lipped staff, *GTA*'s sequel will only further the cause.

Currently dubbed *GBH*, the title will make further in-roads into the rules of traditional game design. Members of the team are keen to dispense with a formal mission structure, leaving the player to fend for themself. By scanning police and mobile phone airbands, aspiring criminals will garner information which can be put to ill use.

Unless it can be proved beneficial to the gameplay, *GBH* will retain *GTA*'s top-down viewpoint (a first-person 3D version of *GTA* actually exists within DMA's server, but it simply didn't play well). Interestingly, one of the key phrases listed on the design document passed briefly under **Edge**'s gaze, was 'film noir'. Coupled with a rumoured near-future setting, this would suggest an atmosphere similar to *Bladerunner*'s, although DMA staff suggested otherwise.

It could be argued that *GTA*'s cartoony graphics were at odds with its content – one of the reasons it didn't get a total ban. Sadly, **Edge**'s requests to play *GBH* were turned down, leaving only one possible outcome: another visit to Dundee...





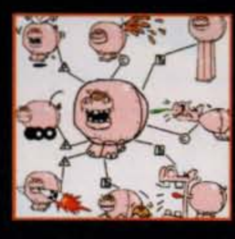
Of the levels so far seen, the snow stages are the most charming. This lone polar bear is accompanied by equally appealing penguins

SPACE STATION SILICON VALLEY

After originally prescreening *Space Station Silicon Valley* in E56, **Edge** was eager to see more of this exercise in cutesy but quirky gameplay. The development team could be found hiding away in one of the company's open-plan offices, busily completing the game's final levels. However, the real interest lay in discovering whether the missions meshed into a cohesive whole.

To recap – the player guides the last remaining segment of a battle robot (its CPU), which can be used to seize control of defeated enemy robots. The various droids bear a striking resemblance to a variety of earth animals, and have abilities related to them. However, DMA's warped sense of evolution has produced a few anomalies, including missile-launching foxes, polar bears with caterpillar tracks, and wheeled mice.

SSSV is more than a little eccentric, but that's not to its detriment. Some of the character designs, such as the penguins on the winter stages, are truly charming – even cracking smiles across the stoniest of exteriors. The missions initially involve menial tasks such as rounding up electric sheep using a synthetic dog, but the complexity soon rises as progression is made. And with twenty main levels, plus bonus stages scattered throughout, gamelife should prove correspondingly high.







For those who believe *Space Station Silicon Valley* resembles the imagination of a particularly warped child, these design documents should be vindication

AN AUDIENCE WITH... DAVID JONES

On a mission to make a difference, David Jones, creative director of DMA and boss of the company, talks to **Edge** about the state of play in Dundee



Edge: Looking at the DMA portfolio, from *Lemmings* to *Grand Theft Auto* to *Body Harvest*, they all share a common trait. They all dare to be different. Just how much of a conscious strategy is this?
David Jones: Very. We always try really hard when we're coming up with new game ideas. Every time we start a project we have to ask ourselves, 'Well, what's different about it?' Also, we ask ourselves why we would want to buy this game. We have a slogan of 'no mediocrity'. We hate to think we do something that could be pigeonholed too much – and therefore get compared to other things. If you can't get compared to things it makes it easier in some respects. People like new things.
Edge: Focusing on ideas instead of technology seemed fundamental to *GTA*'s development. But most gamesplayers want 3D eye-candy as well. Was this a concern?
DJ: Halfway through the development the publishers were worried because it wasn't 3D. And they did say 'you've got to make it 3D'. We did some mock-ups and we have a version of *GTA* running effectively just about in 3D, but what people don't understand is that it changes the game so much because you're driving down a street and you can't see round that next two left-hand corners. In *GTA* that changes the gameplay a lot. You can't see what's behind you a lot of the time unless the camera is way, way back. And if it's that far back then you're view is virtually overhead anyway. I think we were a bit worried that because it wasn't 3D we were going to get hammered. But when people started playing it, they had fun. Personally, I think it worked and we've had really good feedback – I think even we were surprised how well it worked.
Edge: *GTA* was a pure DMA game, and that shows. Just how much influence does an outside party such as Nintendo have?
DJ: *GTA* was something we created entirely ourselves, whereas *Body Harvest* is a bit more mainstream – it's not really a typical DMA game, because we were taking direction from Nintendo. I suppose in simple terms you could say that *Body Harvest* is just another action adventure game and I think it would have been different had we been left on our own to do it. But I do honestly think it's a better game for Nintendo's involvement. Some of the future projects we're working on will be more typically DMA, and therefore probably a bit more off-the-wall.
Edge: The creative output of DMA and Gremlin doesn't seem to have much in common. What led you to be overcome by Gremlin?

'I DO HONESTLY THINK BODY HARVEST IS A BETTER GAME FOR NINTENDO'S INVOLVEMENT. SOME OF THE FUTURE PROJECTS WE'RE WORKING ON WILL BE MORE TYPICALLY DMA, AND THEREFORE PROBABLY A BIT MORE OFF-THE-WALL'



DJ: We've been doing games for a long time now, and basically the decision was taken because we want to learn from each other. We want to increase the number of game releases between now and Christmas and we have three games coming out, which for DMA is a huge step up [laughs].
Edge: What did you want to learn from them?
DJ: We've learnt a lot from them in the way they produce games and get them to completion. They had some good systems that we've adopted. And likewise, they recognise that creatively DMA are really strong, and they want to learn how to make stronger original projects as well – even though they have a very good sports range that people recognise. So we thought we could learn a little bit from each other.
Edge: But most publishers – including Gremlin – are chasing the mass market. What's DMA's strategy going to be?
DJ: We try and classify ourselves as a toy company – the things we are making are effectively toys. With our games we try not be too platform specific or think about things like that. We look for a simplicity in the original design, in an original idea and build upon that, and we never want technology to get in the way. We don't think that way. We'd be quite happy making games for the Game Boy!

Eighth Wonder

AFTER LEAVING THE RELATIVE COMFORT OF RAREWARE TO FOUND THEIR OWN PLAYSTATION DEVELOPMENT COMPANY, THE EIGHTH WONDER TEAM INVITES EDGE OVER TO CHEW THE FAT








Over the last few months, many loyal Nintendo owners have considered purchasing a PlayStation simply because of the quality of its third-generation games. But the PlayStation's continuing success has also ensured a different kind of defection – that of developers.

SquareSoft publishing *Final Fantasy VII* for Sony's machine is perhaps the most famous defection, but the news last year that several Rare staff had jumped ship to form a new PlayStation development studio, Eighth Wonder, must also cheer Sony fans. It certainly pleased Sony, who promptly bought a stake in the company.

Eighth Wonder's first game currently answers to the working title of *Popcorn*, and is scheduled for release late this year. Heavily inspired by Hudson's seminal *Bomberman*, *Popcorn* takes the frantic action of the console blast-fest and opens it right up. While the emphasis remains on disintegrating opponents with bombs, there will be puzzle and exploration elements. Ironically, *Popcorn*'s closest relative is probably the recently released *Bomberman 64*, though it is less of a committed platformer.

'The main inspirations for *Popcorn* have been problem-solving games,' confirms **Oliver Norton**. 'We feel that the player should be rewarded for inventive thinking as well as fast reflexes. The nature of *Popcorn*'s puzzles in single-player mode is more reminiscent of games such as *Tomb Raider* or *Zelda*.'

There's no doubt that the most immediately impressive thing about *Popcorn* is its graphics. The coloured lighting is stunning, and the screen boasts a semi high-resolution of 512x240, which Eight Wonder says will be maintained at a consistent 30fps. The textures are also striking, demonstrating little of the warping found in most PlayStation games.

In another testament to Sony's developer libraries, the team seems to have made the transition from the N64 with consummate ease. 'It was all totally new to us,' says Norton.

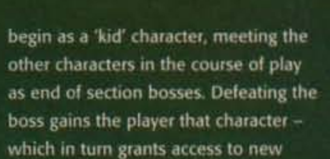
'As soon as we got the PlayStation hardware this time last year, we sat down and played with it and worked out where most of the other games were going wrong'. Norton adds that aside from the storage medium, the differences between the N64 and the PlayStation are overplayed. 'They are very similar,' he maintains.

CHARACTER BUILDING

The graphic niceties of *Popcorn* aren't limited to technical issues. Character design is coming along, and bares some of the hallmarks of Rare's influence. There will be over ten playable characters (counting those hidden from initial play) including a Robbie the Robot type with a goldfish bowl head; a female ninja and a knight.

At the moment, there are no major differences in how these characters play. Nevertheless, there will be more to them than just a chance for players to select the eccentric humanoid who most matches their self-image. Players





begin as a 'kid' character, meeting the other characters in the course of play as end of section bosses. Defeating the boss gains the player that character – which in turn grants access to new areas. For instance, the knight is found in the innermost sanctum of his castle. Servants within the castle prevent anyone but the knight from entering certain rooms. By defeating the Knight, the player can assume his identity and proceed past the mollified manservants. In all, there will be six

'AS SOON AS WE GOT THE PLAYSTATION HARDWARE THIS TIME LAST YEAR, WE SAT DOWN AND PLAYED WITH IT AND WORKED OUT WHERE MOST OF THE OTHER GAMES WERE GOING WRONG'



***Popcorn*'s gorgeous lighting effects lend atmosphere to the individually themed levels**

such themed levels in *Popcorn*, each containing three levels.

It's the bombs, however, that Oliver Norton is most proud of. 'Our catalogue of different bombs is inspired by weapon fests such as *Quake*, which have been so popular over the last few years,' he says. Another objective was to make bombs whose potency is neutralised by obstacles, just as in the original *Bomberman*. (Recent incarnations have featured spherical blasts that destroy everything in a fixed radius, regardless of whether the victims are hiding around corners).

Popcorn's arsenal includes remote control ones which can be detonated from a safe distance, proximity bombs, ▶



The (original) Eighth Wonder team may have been founded by Rare fugitives, but its creative principles look to have produced some tasty results





Eighth Wonder built all its design tools and level editors from the ground up. Thoughtful design reduces the warping found in many other PlayStation games. In later levels baddies can navigate complicated mazes to reach the player





COOKING POPCORN

Its exploration aspects notwithstanding, *Popcorn* will thrive or dive on its twitch gameplay. 'The balance between bomb usage, baddies and puzzles is constantly being tweaked and juggled,' says Norton. 'I envisage that's where most of the rest of the development time will be spent before the game is released.'

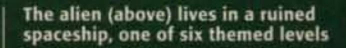
which explode when approached and player-guided bombs, including one with helicopter blades on top. The latter is the sort of bomb that would be employed to solve puzzles. 'There are places where the player has to find a little hovering bomb and fly it over something to blow it up,' explains Norton.

'The baddie software is quite intelligent,' Norton continues. 'There will be bits where you'll lay remote control bombs around a corner and then attract their attention. You can also sneak up behind baddies and drop bombs behind them. Sometimes they'll notice, sometimes not.'

Each themed section contains at least three new enemies. 'As the player progresses through the levels the baddies get smarter, they can then navigate their way through a complicated maze to get to the player.'

Eighth Wonder itself is still finding its bearings in the games industry. Norton refuses to rise to **Edge**'s baiting about a possible return to Rare. (Joking 'I don't think we'd be allowed back'). Two of Eighth Wonder's founding members have departed the fledgling company (though not Rare) with two new recruits, Andrew Wood and Jamie Hemming, taking their place. But with four of the founding Rare exiles left in place, **Edge** can't resist further questions about life away from the secluded, sports car-surrounded Nintendo powerhouse.

'We're on a business park now, which doesn't have quite the glamour,' admits Norton. 'The main change though, is in the work we do. Before we'd just have our own bit to get on with, like the graphics or the code but now we have to take care of a lot of other stuff as well.'

The alien (above) lives in a ruined spaceship, one of six themed levels

SONY'S INVOLVEMENT IN EIGHTH WONDER, WHILE IMPORTANT, ISN'T STIFLING, SAYS NORTON. 'AT THE END OF THE DAY, IT'S GOT A LOT OF SAY BUT CREATIVELY JUST LETS US GET ON WITH IT.'

ROOM TO MANOEUVRE

Sony's involvement in Eighth Wonder, while important, isn't stifling, says Norton. 'Juan Montez [Sony Computer Entertainment Europe's general manager] is on our board of directors,' he explains. 'At the end of the day, Sony's got a lot of say but creatively just lets us get on with it.'

Although the team seems to be enjoying its newfound responsibilities, there's an awareness that the company will have to grow in order to survive. At the moment the team is concentrating on *Popcorn* alone – almost unheard of in these days of parallel development projects. 'Six people is barely enough to do one game,' concedes Norton. With luck, *Popcorn* will generate the revenues to fund future expansion.

'We have got spare office space, so we could put more people in there. But we don't want to grow too big, too fast. Whatever we do next will be very, very different.'



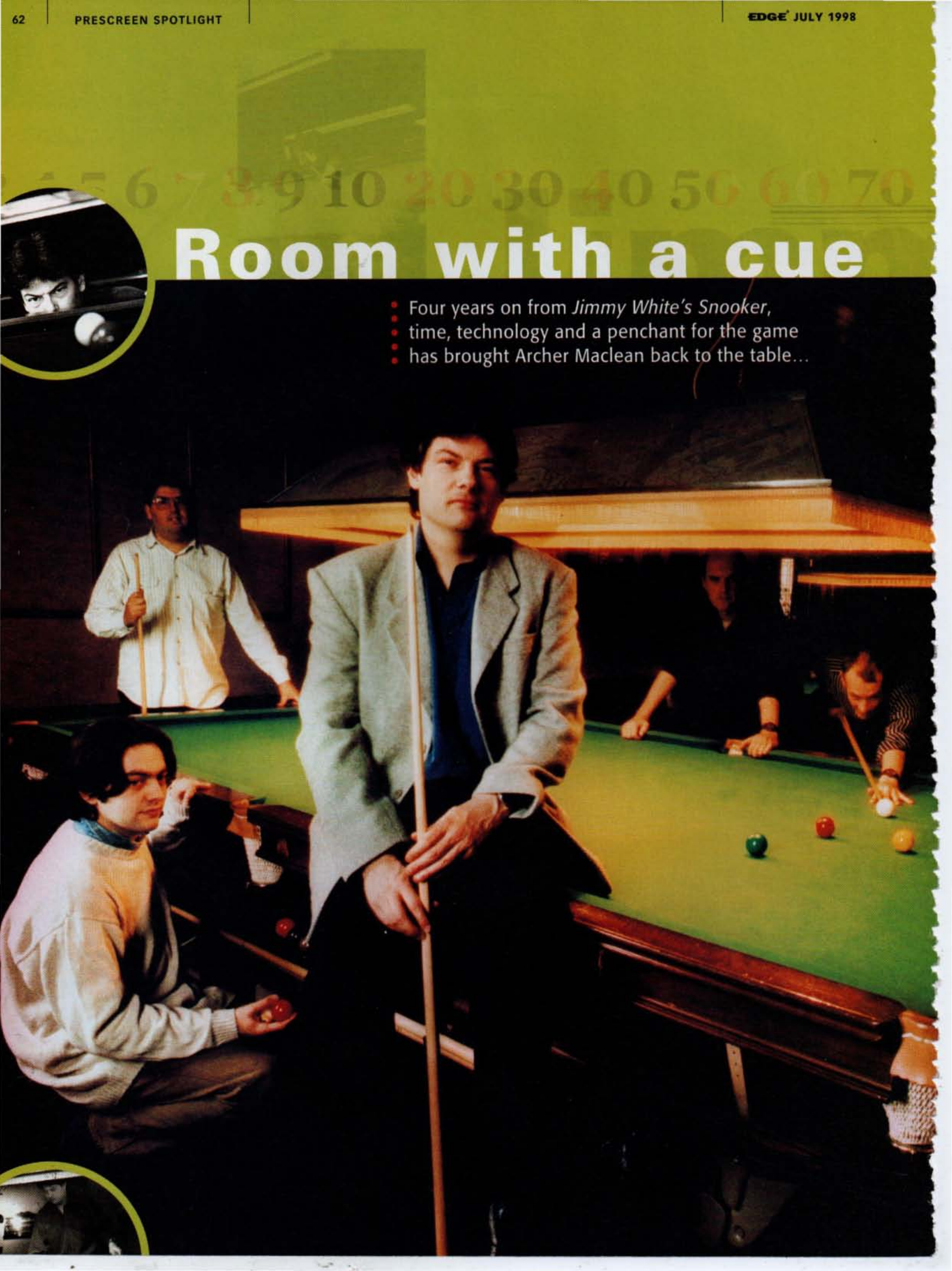

The death sequences were inspired by the film 'The Frighteners' (top)

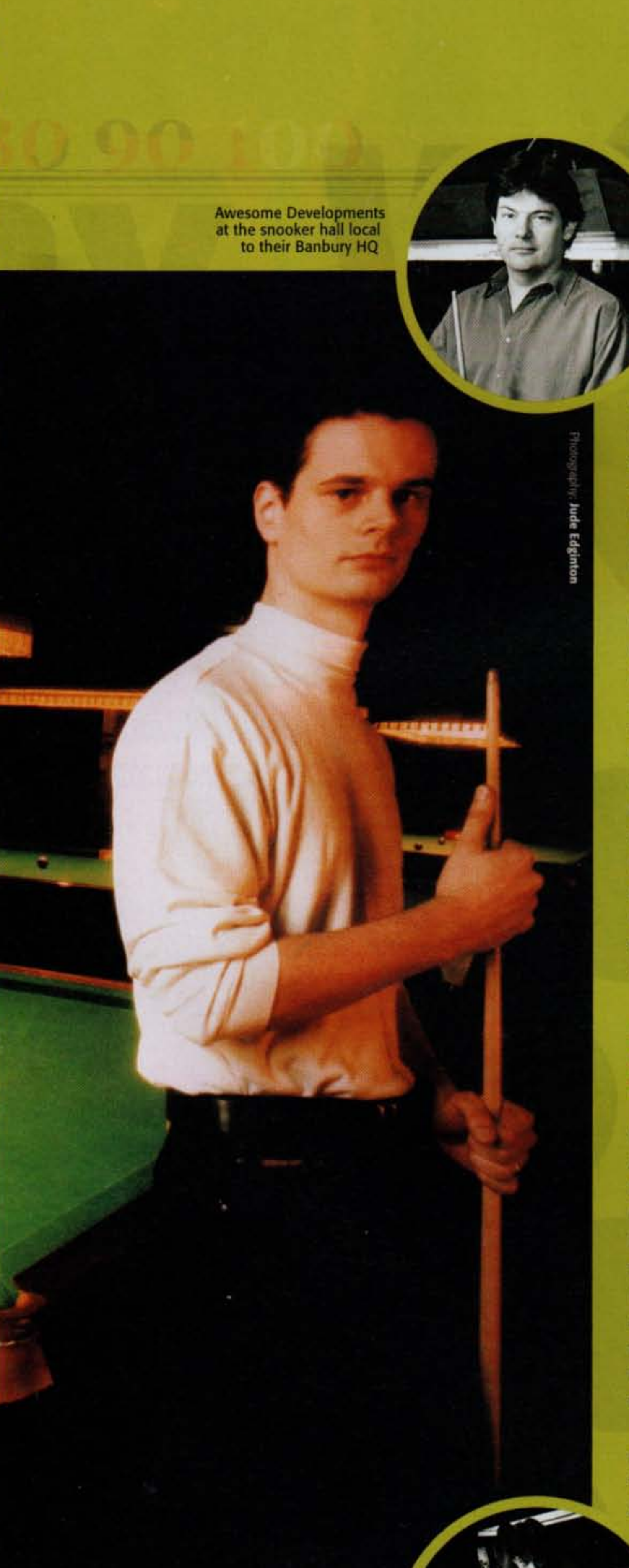


The kid (left) looks ominously similar to the cloying main 'character' in Psygnosis' *Rascal*

Room with a cue

Four years on from *Jimmy White's Snooker*, time, technology and a penchant for the game has brought Archer Maclean back to the table…





Awesome Developments at the snooker hall local to their Banbury HQ

Photography: Jude Edginton

Most videogames designers are, to some extent, dreamers. But how many can actually claim their games are inspired by dreams? Archer Maclean can. His last two releases and his latest creation – tentatively titled *Jimmy White's Q* – all stem from a very vivid, colourful dream Maclean had when he was a student back in 1981. 'I had visions of floating around the table as if I was a camera,' says Maclean. One look at *Q* – the designer's first PC original – and it's clear that his dream has taken one large step nearer to becoming a reality.

A lot has changed since Maclean last had a game out, the Mega Drive conversion of *Jimmy White's Snooker* in 1994. A two year break from the industry followed – 'did all the wrong things; wine, women and song', says Maclean – then he set up Awesome Developments, his small Banbury-based company, and went to work designing a new game. But why did he choose to go back to snooker and pool? 'Well, obviously, a lot of the things I wanted to do with the first one,' he replies, 'I simply couldn't do because the technology wasn't there.'

What this technology has allowed Maclean and his team to create is not just a simulation of the mechanics of pool and snooker, but of the environments that surround the green baize tables. With complete freedom of movement, the player roams anywhere in the rooms that make up *Q*'s playing area, from the Edwardian games room that holds the snooker table, across a hallway, to the American-style bar that's home to the pool table.

On top of that, the rooms are full of many other distractions. There's a fully-functioning dart board (with 301, 501 and Round-the-Clock games), a draughts board, a one-armed bandit and even an arcade machine featuring the original version of Maclean's first game, the *Defender*-inspired *Dropzone*. The other details in the background can also be fully explored, enabling the player to examine the paintings on the walls, the busts in the hallway, the fish in the tank, the bar in the pool room – pretty much everything there is to see.

The idea behind the multi-room milieu and all the sub-games, is not to compile a compendium of pub pursuits but to provide one thing – atmosphere. 'The gameplay is there as well as the atmosphere,' reasons Maclean, 'but if you take one away, the other lacks a lot. Otherwise, we could just strip it all back to the 1991 original which was as playable.' As a result, *Jimmy White's Q* feels more like a multimedia explorer than a conventional snooker sim, although technically its recreation of ball physics goes further than any previous entrant in the genre.

In play, angles, spin and side are all determined by icons and by rotating the game camera. The power of the shot can be controlled in one of two ways – via an incremental power bar or by using back and forth mouse movement to simulate the cuing action, the innovation that so marked out the *Virtual Pool* series. The power bar approach is the easiest to pick up but, rather like *Quake* play, the more exacting mouse control is preferable. In fact, the whole game is designed to be controlled by mouse and icons, from general room movement to the specific entertainments on offer – click on any one of them and the game camera 'locks in' on them.

• Playing on the table, with the surrounding room lights 'dimmed', it becomes clear why Maclean is so obsessed with creating 'atmosphere'

Playing on the table, with the surrounding room lights 'dimmed' (a feature which not only adds to the mood but helps to avoid slowdown), it becomes clear why Maclean is so ▶

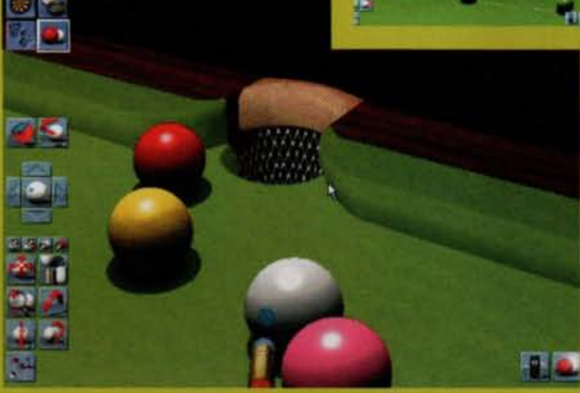


Q's mouse-based control system gives the player free rein to roam around the rooms that make up the playing environment. Here, it's the Edwardian-styled snooker room





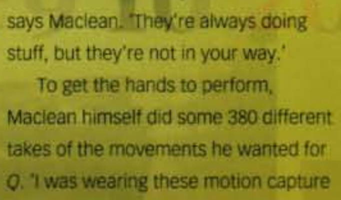




Q's attention to detail is meticulous throughout, but the ever-active, motion-captured, gloved hands are always impressive (above right)

obsessed with creating 'atmosphere'. Just as stadiums and multiple camera angles add to the experience of playing a football sim, so the rendered rooms enhance snooker and pool sessions. And, in place of motion-captured footballers, Maclean has his own, unique embellishment – motion-captured hands.

'When I first came up with the idea,' explains Maclean, 'it was because I wanted to put the hands in. I wanted to have white gloves – in a Disney-esque way – with three-fingered cartoon gloves doing everything for you.' In the game, the gloves take the role of computer opponent and referee. They take shots against the player, retrieve potted balls from pockets and place them back on the table, they even clean the white. 'They're never static,' says Maclean. 'They're always doing stuff, but they're not in your way.'



To get the hands to perform, Maclean himself did some 380 different takes of the movements he wanted for *Q*. 'I was wearing these motion capture gloves called Cybergloves – there's only one set in the country and they cost £22,000 each,' he says. 'They've got bend sensors and God knows what all over them, and these things are so fragile they don't come with a guarantee.' On top of that, Maclean sported motion sensors up his arms to register how the hands interacted together. 'I had great difficulty eating and going to the loo, it takes ages to put them on, like make-up for a film.'

'I was wearing these motion capture gloves called Cybergloves – there's only one set in the country and they cost £22,000 each'

Each hand is made up of some 400-plus polygons when seen up close, but the detail level varies depending on how far the game camera is from them. The gloves, like all the objects in *Q*, are what Maclean calls 'LODded' – the LOD standing for 'levels of detail', of which there are four. With the backs of the gloves obscured a lot of the time, the gloves are typically made up of around











Aside from snooker and pool, some of the other distractions on offer in *Jimmy's Q* (clockwise from top left) are darts, a jukebox, chequers and a one-armed bandit





Q's curious flourishes include a bee fly-by and an explorable mousehole









250 polygons but, at the furthest extreme, are represented by just 50 or so. '*Quake* has around 80-90 big polygons on screen at any one time,' claims Maclean, 'that don't have any of the lodding stuff we have.'

In contrast to the snooker setting, the pool room is a homage to 50s' Americana. (Above) Just visible beyond the pool table is a tabletop version of *Dropzone*

Other details distinguish *Q* as well. Get up close to anything in the three rooms and there's no pixelation or polygon folding. Balls don't disappear when they're potted, they roll into the pockets and – depending on which game you're playing – into the glass tray of the pool table or down on to the runners under the snooker table pockets. This might seem like excessive realism but that's not the aim of *Q*. 'I didn't want the atmosphere to break up,' says Maclean. For this reason, he ruled out both commentary and full, polygonal players. 'It might look great, but then it's a simulation and it would really slow down the gameplay if we had this huge, fat snooker player moving about. What's going to happen when he leans across the table to do an impossible shot? How do we do that?'

'The PlayStation might be a brilliant graphics machine... but it's got some serious hang-ups when it comes to doing floating-point maths'

Work is progressing on a PlayStation version of *Q* too, set to be the first entry in the genre for the Sony machine. 'It might be a brilliant graphics machine,' he says, 'but it's got some serious hang-ups when it comes to doing floating-point maths'. The team's solution is to take the code from the 1994 version of *Jimmy White's Snooker* in integer form. 'It's sort of pseudo floating-point,' explains Maclean. 'Steve, our PSX guy, has put all this on the PlayStation in its own sort of RISC format.'

But it's on the PC that *Jimmy White's Q* will debut and – no matter what the Awesome team squeeze out of the PlayStation – it is the PC version that looks set to be the new benchmark in the snooker and pool genre. It's hardly an oversubscribed genre, and not exactly favoured by the beat 'em up and driving game fans. However, its explorer-style presentation and atmospheric features suggest that its appeal lies beyond the hardcore, in the wider sphere of general PC owners. Whatever the case, it looks as if Archer Maclean's attention to detail has paid dividends again. **E**

DROPZONE

Archer Maclean's first game was a *Defender*-esque shoot 'em up, originally released on the Atari 400/800 computers in 1984 and subsequently a UK chart topper on the C64 in 1985





INTERNATIONAL KARATE+

First released on the C64 in 1987, the Amiga and ST versions of Maclean's beat 'em up established it as the definitive fighting game in the pre-*Street Fighter II* era





An audience with...

Archer Maclean

He personifies creativity, yet success has paved the way for a different kind of role. Heading up Awesome Developments, Archer Maclean wrestles with a corporate image in order to get on with the game



Edge: This was your very first project as a team-player with Awesome, and not as a one-man programmer, wasn't it?

Archer Maclean: Yeah. Well, there's no way I could do it all. And besides, these days, I'm trying to wear too many hats. There's no way I could do the programming and the graphics, so I tend to design and direct and oversee, and have even been known to make the tea.

Edge: What differences did you notice, not being responsible for every single facet of a game?

AM: I've always tended to be a perfectionist. In the past, I wouldn't take funding off anyone for doing my games. I got fed up of people saying, 'Ah, no, it's impossible,' so I would just go and do it. A year later, I would pop out of the woodwork with stuff that was 90 per cent complete and have my hand bitten off by publishers who previously wouldn't look at it.

Now, it's all corporate, and that is a real pain in the arse because creativity can really suffer. But from their point of view, I imagine they would argue that planning and product management and getting things in on time is actually quite good. And we're pretty much on time, on budget and not far off ready to ship with a couple of months to finish off. But I've had to fight a lot and argue, saying, 'Yeah, yeah, leave us to it. We'll get it done.' That's been a pain, dealing with the bureaucracy. It adds 25 per cent to the development time, sitting around, forever answering questions. But that's what happens when you have teams of people and have to pay other people to do things, although – luckily – the people I have here are fairly in tune with the way I think.

Edge: Is it easier to make games, as technology and tools have become more powerful?

AM: No, games are still games. It doesn't matter to me if it's 1982 on the Spectrum or 1998 with a 3Dfx card and a Pentium 300 sitting behind it. All that's happened is, the way in which the gameplay is expressed has changed. Obviously, it gives rise to previously impossible games, but gameplay – it doesn't matter if it's 10K of code on a ZX80 or 650Mb on a CD-ROM – hasn't changed a lot. If anything, it's getting worse. Quite often I see stuff where fantastic technology is badly used and badly programmed.

Edge: Is it a bit of a commercial risk to do snooker and pool games? Is there a market for it?

AM: There's various niche markets. They can be broadly divided into shoot 'em ups, beat 'em ups, driving games, stuff like that, and ball games – pool games – they have their own niche, too. It also appeals to a very broad range of ages, we're not dealing with 13-year-olds who want to beat each other up in the playground, we're dealing with whatever the span of the PC's age range is.

Edge: You weren't tempted to revisit *IK+* instead?

AM: I wouldn't rule it out.

Edge: What about doing a beat 'em up in general?

AM: Oh, yeah, I'd love to do another one. But it wouldn't be *Street Fighter* or *Tekken* or anything like that. It would be my interpretation of a beat 'em up. And I think I could create the same magic I did with *IK+*, but on a vast scale. The playability that *IK+* had would be there and it would also be networkable so you could have two, four, eight, whatever number of people playing against each other or in co-operation. I love the idea of, say, two teams of four beating the hell out of each other... that would be good.

Edge: Are you going to keep things small here?

AM: If I can. I'd like to have a nice, small team. I don't want to build myself up into the world's biggest software empire because that's a recipe for disaster. I don't want to work on any more than one or two projects at a time. That way I can retain quality.

'Now, it's all corporate, and that is a real pain in the arse because creativity can really suffer. But I imagine they would argue that planning and product management and getting things in on time is actually quite good'









Maclean played pool and snooker extensively for research. So he says



to be this good takes ages

It triumphed with the Mega Drive, fell from grace with the Saturn, and is now first off the blocks once more in the race towards videogaming's next level.

But with its brand loyalty eroded, and fierce competitors hot on its heels, Sega now faces its toughest challenge yet: turning dreams into reality

Photography: **Hiroki Izumi**



Sega is dead, long live Dreamcast. As complete in conception as the Saturn was flawed, Sega's new home interactive entertainment system has been revealed to the world. Yet the famous Sega logo is nowhere to be seen on the machine's casing, supplanted by the soon-to-be-ubiquitous orange spiral of Dreamcast. As Saturn muddied consumers' respect for its master's good name, a clean break from the past was, essentially, the only solution.

Backed by some of the world's most powerful electronics and videogame companies, Dreamcast contains a level of technology that well surpasses high-end PCs. Clearly that position is not sustainable, and will have altered by the console's November 20 release in Japan. However, the classic 'console versus PC' argument of relative performance per pound is once more valid, in light of Dreamcast's likely retail launch at under ¥30,000 (£140). Securing backing from the mighty Microsoft, through the console's employment of Windows CE, will bring a new range of titles to Dreamcast, and perhaps prospective PC purchasers with them. After all, if the player can access PC-style games, on high-end hardware, at a tenth of the price, a Pentium II begins to look more like the expensive and complex proposition it often is.

The new machine's name is a somewhat quixotic blend of 'dream' and 'broadcast' (a device therefore capable of transmitting dreams). Sega's representatives are keen to promote a secondary meaning, drawn from the cast of key companies involved in production of the hardware – a 'Dream Team' to match Nintendo's infamous own. Perhaps the most striking aspect of the moniker and logo is its almost Hollywood-influenced corporate styling. Few outsiders to the videogaming scene would consider this to be a typical game machine logo, devoid of numbers and techno-jargon.

According to Sega president **Shoichiro Irimajiri**, 'We contacted lots of companies in the brand business, and collected hundreds of ideas from people, and we also asked our alliance companies such as Yamaha to show us their libraries of names. I think there were more than 5,000 names at one stage.' If activity on the Internet is anything to go by, **Edge** is one of the few fans of Sega's chosen title for the new console. PlayStation was an intelligent, if obvious, title for a games machine. Dreamcast moves the goal posts into Apple territory, bristling with quirky sophistication.

It's thought that a London-based company secured the contract to develop Dreamcast's branding, although Sega is coy about revealing which. Meanwhile, Sega of America's Bernie Stollar has enlisted Foote, Cone & Belding (responsible for promoting MTV and Levis, among others), to market the console in the US. Undoubtedly, Sega is serious about Dreamcast's launch, so far allocating $100 million (approximately £61.5 million) marketing spend for each of the major territories. After the failure of Saturn to grasp the imagination of Western gamers, Sega can ill-afford another third-place.

By melding the solutions from several manufacturers, Dreamcast has formed into a cohesive whole. Beneath its sleek, PlayStation-like casing, lies a powerful combination of CPU, operating system, graphics chipset, connectivity and sound, capable of comfortably outstripping current opposition. As ever, Sega has played its hand first, while its opponents maintain the straightest of Poker faces. Irimajiri-san is positive that Sony will launch the PlayStation's successor sometime in '99, yet seems unworried by the prospect. Clearly, Dreamcast has instilled Sega with a new confidence – a confidence that has yet to be dented. ▶

INSIDE THE DREAM MACHINE

SEGA'S DREAMCAST FEATURES A HOST OF TECHNICAL INNOVATIONS, WITH IMPLICATIONS FOR THE FUTURE OF GAME APPEARANCE AND DESIGN. EDGE DELVES IN TO THE MACHINE – AND THE TECHNO-JARGON THAT SURROUNDS IT – TO RETRIEVE THE CRUCIAL DETAILS WITHIN...

ACTIVE AUDIO

Sega Enterprises' president **Irimajiri**-san was definite in telling **Edge**; 'We think that music will be one of the major elements of games.' However, Dreamcast audio partner Yamaha has been notably quiet about the announcement, releasing only a short statement at the console's launch.

The chip itself is a 32bit RISC design, allowing for 64-channel output, and is supported by 2Mb of dedicated RAM. Other than its ability to play samples (now a standard feature for the majority of PC audio boards), Yamaha's chip is also able to deliver digital signal processor effects. These include Surround Sound, reverbs, and potentially, '3D' audio. It's an exciting prospect, given the increasing proliferation of home cinema systems in the UK and elsewhere.

WORTH THE RISC

Dreamcast's central processing unit is a single 200MHz Hitachi SH4, capable of 360MIPS/1.4GFLOPS (Floating-point operations crucial for geometric calculations) – around ten times more powerful than each of the Hitachi SH2's that powered Saturn. (The original *Ridge Racer* arcade cabinet operated at 0.4FLOPS). Trawling through Hitachi's Website reveals that Sega has opted to load the maximum amount of on-chip cache (8Kb) for Dreamcast. However, the true 128bit SH4 (part of the Super H family of processors) was designed at its outset to run with Windows CE, making it an easy choice for the new console. Hitachi and Sega's past relationship must also have helped the selection.

According to the developers **Edge** has spoken to, one of the key advantages of the SH4 is that complex physics calculations become relatively light CPU work. This suggests realistic animations are now within a programmer's grasp. An easy reference point is to compare car movement in *Gran Turismo* to that in *Ridge Racer*. Driving hard into corners tips the weight of the car forward, compressing the front suspension, as in reality.

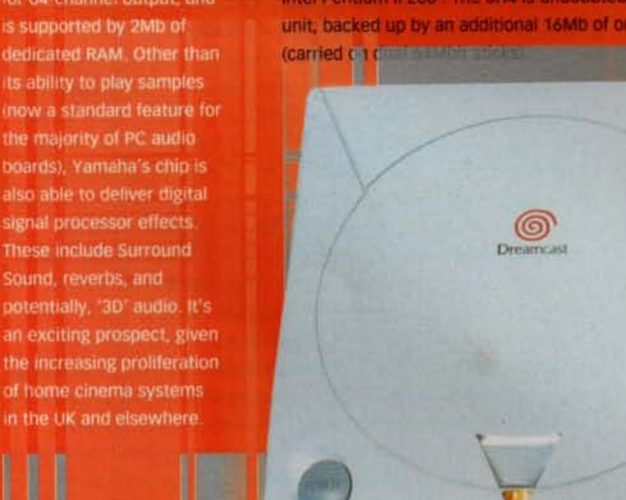
Hitachi also claims that the SH4 'enables Dreamcast to perform floating-point calculations, four times faster than the Intel Pentium II 266'. The SH4 is undoubtedly a very powerful unit, backed up by an additional 16Mb of onboard SDRAM (carried on [illegible]

PLUG AND PLAY

One of the highlights of the Dreamcast announcement is its 'Visual Memory System', a standalone portable game system which doubles as a memory card. This 45g unit resembles a boil-washed Game Boy, complete with its own 48x32 pixel LCD screen, D-pad and buttons. Currently, the VMS will be supplied with 128Kb RAM (1Mbit), with third-parties likely to offer higher spec units, as with N64 and PlayStation. In true *Pokemon* fashion, two VMS units can be plugged together to exchange information. Sega's press material also hints at a mobile telephone connection, and the possibility of transferring information to and from arcade cabinets.

Set for a Japanese release this July, the VMS should prosper to a reasonable degree as a separate product (presumably in an attempt to prevent it being overshadowed by Dreamcast). However, Nintendo's forthcoming Colour Game Boy is more likely to capture the imagination of Japanese gamesplayers, albeit at a higher retail price. In reality, Sega's VMS treads the same ground as Sony's recently announced PlayStation PDA – with one key difference.

By shifting the memory card's connection point from console to controller, Sega has opened up a world of possibilities. For instance, imagine playing a multiplayer *GoldenEye* deathmatch, with each participant equipped with a VMS unit. A specific collectable could be included that turned the LCD into a motion-tracking screen, unique to the player. Alternatively, there could be a driving game bonus that revealed information about the opposing car's fuel level – or an RPG where certain puzzles had to be played out using the VMS. The only limit, as ever, will be developers' ingenuity.





GUIDING LIGHT

Where Nintendo innovated with its N64 controller through the introduction of analogue control, Sega has opted to evolve the Saturn's analogue pad. The Dreamcast pad is essentially a whittled-down version of that controller, with its diminutive D-pad and joystick falling under the left thumb, twin triggers underneath, and four buttons on top. Compared to both PlayStation and N64, the key count is low, a factor which members of the development community are already bemoaning. Sega should perhaps consider retaining its historic six-button layout.

Edge seized the chance to guide the flight path of Dreamcast's second demonstration piece (see page 72), and was surprised by how light the control pad is. This may be due in part to the large cavity in the top of the unit, inside which two connections are found – one perhaps for a rumble pack, and the other for VMS.



LOGICAL 3D

As predicted in E52, Sega has opted to use the PowerVR Second Generation chipset to generate Dreamcast's visuals. Delivering a claimed three million polygons per second, in conjunction with the SH4 (**Edge**'s sources indicate that 1.5 million is a more realistic figure), PVR2 reduces the CPU load by calculating full floating-point geometry and the texture setup. Additionally, the chipset operates by tiling the screen in segments, a process which reduces the required bandwidth.

While there has been much hype (some of it emanating from within Sega itself) about Dreamcast's polygon performance outstripping the Model 3 arcade architecture used for *Scud Race*, there are significant differences between the two systems. Other than Model 3 having a huge amount of RAM, its chipset deals with square rather than triangular polygons, requiring less to draw flat planes.

Beyond the technical aspects of PVR2, the most striking feature home users will notice is the high-resolution output facility of Dreamcast. According to Sega's head of R&D, Hideki Sato, the console's standard resolution will be 640x480 (interlaced), with a refresh rate of 60fps. **Edge** witnessed Sega's launch demonstration software running on a standard television set and was struck by the clarity of the image. It now seems that the N64's 'blurred' visuals could simply be due to its low-resolution output. Additionally, a VGA adaptor will be available for gamers to hook the console up to a PC monitor, reinforcing how close PVR2 has drawn Dreamcast to the PC.

SYSTEMATIC APPROACH

Microsoft has won another battle. Sega's selection of Windows CE has made Dreamcast an irresistible proposition for developers. A new, powerful platform will always be an attraction for the development community but, for Dreamcast, Windows CE has brought a new element to the decision as to whether to produce titles for the console. The ease of conversion and extension of existing titles makes it a 'why not?' choice, helped along by Sega's renewed commitment to supporting developers. The company's infamous reluctance in sharing code libraries is promised to be a thing of the past.

Among the specific modifications made to Windows CE for the Dreamcast platform, the most significant has been the removal of its graphical user interface (GUI). Along with other selected features, this has been jettisoned to keep the memory overheads of the OS to a minimum. Microsoft is claiming that all critical sections of code have been reprogrammed in assembler, designed to mesh tightly with the SH4's specific capabilities.

The key advantage to Windows CE is that developers can choose which segments of the OS they wish to use. While DirectX 6.0 is included in the package, keen developers are free to install their own code, writing directly to the metal. However, many will opt to utilise standard features such as the CD management and network controller, saving time (hopefully) to focus on gameplay.

Sega's interest in the PC market takes on a new light now that Dreamcast has gone public. Clearly, the company's programmers have been testing the water, prior to diving all the way in. As Irimajiri-san puts it, 'No question about it; there will be lots of parallels between PC and Dreamcast titles.'

MODEM LIFE

Dreamcast will be supplied with a 33.6Kbps modem as standard, backed by a bespoke network service in all territories. Sega is promising that the system will be plug-and-play, with near-transparent connection. Notably, Dreamcast will refuse to attach to a server if the connection suffers from heavy latency problems. Although the intention of this is to retain the console's 'hi-tech' image, repeated non-connection could prove harmful.

Irimajiri-san revealed that the modem will be upgradeable, allowing users to install (by pulling one board out and pushing in another) a higher bandwidth card. In a related move, Sega of America has announced a deal with the @Home Network giving it access to a potential audience of millions of cable users, as the cable companies gradually switch to digital systems. Similarly, Sega's Heat.net Internet gaming service now appears suspiciously like a huge trial run for the Dreamcast network. However, current plans will not allow for intercontinental connections, possibly due to NTSC/PAL conflicts.



ONE GIG FITS ALL

In what can only be seen as a move to limit piracy, Sega has opted to use a proprietary one gigabyte CD format for Dreamcast. (Cynics might also suggest that this gives the company complete control over software pressing for the console, Nintendo-style).

While DVD may have been a tempting option for Sega, the company's overriding concern has been to keep the console's retail price down. Dreamcast's loading times should be a slight improvement over PlayStation and Saturn, due to a 12x CD drive being fitted (although there is now 16Mb RAM to fill, rather than 2Mb).

SOFTWARE HEROES

SEGA SURPRISED MANY BY FAILING TO SHOW DREAMCAST WITH AT LEAST ONE IN-HOUSE TITLE. INSTEAD, IT CHOSE TO DISPLAY THE MACHINE'S POWER WITH TWO TECHNICAL DEMONSTRATIONS. MEANWHILE, REAL WORLD DEVELOPMENT IS BEGINNING TO GATHER SPEED…


Tetsuya Mizuguchi











DEMO 1: IRIMAJIRI-SAN

Devised by ex-AM division creative Tetsuya Mizuguchi (far left, who recently switched to consumer game development), the first of Sega's technical demonstrations featured a motion captured representation of Soichiro Irimajiri's head. Running in the console's standard 640x480 resolution, the quality of the texture maps used immediately impressed. Essentially the title pokes fun at Nintendo's introductory sequence for *Super Mario 64*, and is complete with light sources that circle around Irimajiri's head (below left).

Of the various effects showcased in the software (and what still images cannot convey), the morphing between shapes proved particularly notable. At one stage the head blends into a golf ball, before being struck off the screen.

Lighting and transparency also seemed of little challenge to the PowerVR Second Generation chipset, including one segment where the head becomes entirely see-through.

Of the two pieces shown, this seemed the less complete, although was far more entertaining. If the facial detail can be reproduced in-game (and *D2* implies that it can), then a new level of characterisation is on its way.


Yu Suzuki

DEMO 2: BABYLON

Another of Sega's AM stars was called in to produce Dreamcast's second demonstration title. Yu Suzuki's *Babylon* proved a better indicator of what can be expected from Dreamcast game environments.

Scattered around the foot of the central tower were scores of houses, each mapped with a high-resolution texture. Zooming close into the buildings simply resulted in more and more detail becoming clear, with no hint of frames dropping space.The lighting was dynamic and switchable between day and night.

High-end, accelerated PCs offer a similar performance, but when launched, Dreamcast will offer £2,000 performance for around £150. Tempted? **Edge** suspects the best is yet to come…

















Sega Europe CEO Kazutoshi Miyake (right) is leading a revitalised division. Bizarre Creations' Sarah Dixon and Martin Chudley (above centre) and No Cliché's David Chomard (above) are thrilled to be involved with Sega

THE DEVELOPERS

While the Dreamcast hardware is undeniably impressive, the greatest lesson learned from the 32bit 'next generation' battle has been that software sells consoles. As console game content continues to become more sophisticated, state-of-the-art eye candy is no longer enough to build a growing and loyal userbase for a new machine. After all, it has taken four years for titles of the calibre of *Gran Turismo* and *Metal Gear* to appear on the PlayStation. Beyond the technical proficiency of Sega's new machine the company faces a challenge that only a truly creative vision can meet.Obviously, the AM divisions' coin-op output will form a rich vein for potential conversions, but ultimately it will be the games developed specifically developed for the home system that will make or break Dreamcast.

Edge was treated to a viewing of early demos, including the famous *Scud Race* tests. Shots of these graphic presentations are not being released by Sega, which is understandable, as they do not reflect the real power of the console. However, watching a pair of fully light-sourced GT cars sliding around at 60fps, looking identical to the original Model 3 code, was a wonder to behold. If this is anything to go by, any conversion of *Sega Rally 2*, *Daytona USA 2* or *Virtua Fighter 3* will be relatively simple to achieve.

Guided by CEO Kazutoshi Miyake, Sega Europe has decided to take a number of developers under its wing, making them what it jokingly terms '1.5 parties'. No Cliché, previously known as Adeline – the French developer behind *Alone in the Dark* and the *LBA* series – heads the list. Renamed and now owned by Sega, the company has retained Frederick Raynal who was on hand in Tokyo to confirm that No Cliché has two titles in development for Dreamcast. Appaloosa Interactive, the Hungarian firm behind *Ecco the Dolphin*, wasn't allowed to reveal the name of its title but judging by its press pack an aquatic mammal is likely to feature prominently.

Three UK companies complete Sega Europe's list. The first of these, Scotland-based Red Lemon Studios is working on a first-person shoot 'em up, although details beyond that are sketchy. *Star Fox* creator Argonaut is to bring a further two titles to Dreamcast, although development manager **Keith Robinson** was adamant that there, 'isn't a *Star Fox* game.' Lastly, Bizarre Creations (the developer of *F1* for Psygnosis) is expanding its driving game horizons with a city-based driving game, currently dubbed *Metropolis*. According to Bizarre's Website, 'Our new publishers have provided us with some brilliant people to support development,' while the game is claimed to be anything but 'a usual circuit racer.'

While none of the European developers are particularly high-profile, between the five of them they are responsible for a collection of well-respected titles. Sega of America president Bernie Stollar used E3 as his platform to both announce Dreamcast for the US market, and to confirm the first publishers to support the console. Acclaim, Midway, GT Interactive, Interplay and Microprose all have titles in production, details of which are scarce. Back on Sega's home turf, Konami and Capcom have been brought into the Dreamcast fold.

With Dreamcast promised to launch with at least ten titles, with another thirty by the time of European launch, Sega is going to need all the help it can get. **Edge** will be watching new developments with interest...





Bill Gates and his all-pervasive OS have opened up Dreamcast to new developers

FRESH FACES







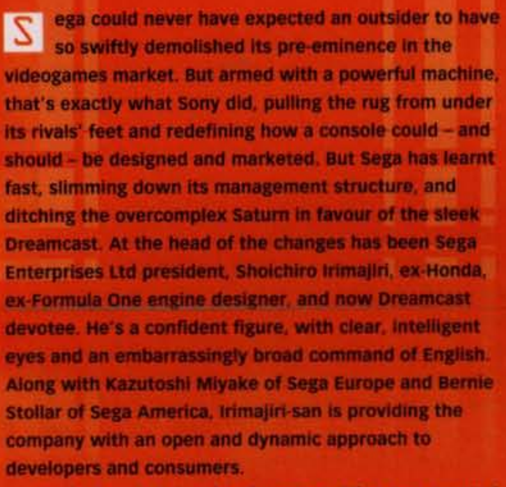




One of Dreamcast's promotional videos flashes up a number of interesting images. From top: Sonic is definitely set to make an appearance on the new console, but in what form? The car below may be related to Bizarre Creation's forthcoming *Metropolis*. Could this be *Dream Nights* (third), and a version of *Virtua Striker 2* (fourth)? Warp's *D2* was the only definite title, although Ubisoft is thought to be converting *Tonic Trouble* and *Rayman 2* to Dreamcast

AN AUDIENCE WITH... SHOICHIRO IRIMAJIRI

AFTER THE DISAPPOINTMENT OF THE SATURN, SEGA HAS HAD TO DO SOME SERIOUS R&D TO TRY AND SIDELINE THE COMPETITION. THE TIME FOR DREAMING HAS NOW COME TO AN END AND SHOICHIRO IRIMAJIRI TELLS EDGE THAT WITH DREAMCAST, SEGA IS READY TO DELIVER THE K.



Sega could never have expected an outsider to have so swiftly demolished its pre-eminence in the videogames market. But armed with a powerful machine, that's exactly what Sony did, pulling the rug from under its rivals' feet and redefining how a console could – and should – be designed and marketed. But Sega has learnt fast, slimming down its management structure, and ditching the overcomplex Saturn in favour of the sleek Dreamcast. At the head of the changes has been Sega Enterprises Ltd president, Shoichiro Irimajiri, ex-Honda, ex-Formula One engine designer, and now Dreamcast devotee. He's a confident figure, with clear, intelligent eyes and an embarrassingly broad command of English. Along with Kazutoshi Miyake of Sega Europe and Bernie Stollar of Sega America, Irimajiri-san is providing the company with an open and dynamic approach to developers and consumers.

Inside Sega's Tokyo headquarters, Edge was granted an audience with Irimajiri to discover his views on Dreamcast and Sega's fresh direction, and how the dominance of PlayStation could be overcome...

Shoichiro Irimajiri: As you saw yesterday, the performance of the hardware is far superior to the PlayStation's. Most of the third-parties say that they want to develop their lead titles for Dreamcast, because of the superiority of the hardware, and I think that gives us the upper hand for one or two years. The most important thing is that before PlayStation 2 comes out, we get a considerable share of the market and generate enough momentum to carry through. Even

'MOST OF THE THIRD-PARTIES SAY THAT THEY WANT TO DEVELOP THEIR LEAD TITLES FOR DREAMCAST, BECAUSE OF THE SUPERIORITY OF THE HARDWARE, AND I THINK THAT GIVES US THE UPPER HAND FOR ONE OR TWO YEARS'

though PlayStation 2 will come out in 1999, our hardware will remain superior, because I believe all of the basic elements [of Dreamcast] are the most advanced technology available. However, we recognise that Sony is our most fierce competitor.

Edge: **Is Dreamcast deliberately being launched between the two incarnations of PlayStation and, if so, wouldn't it make sense to do the same in the West?**





SI: We had a difficult situation in Europe and America with Saturn, and we've learnt a lot. We recognise that doing business in the US and Europe is far more difficult than in Japan, so we decided that we must be 200 per cent prepared for Dreamcast's launch next year. This year we are running at 100 per cent in preparation for the launch in the domestic market [Japan]. And, as you know, in Europe and the US, game development takes a lot longer – 18 months on average. When we launch Dreamcast in the Western markets we will have a lot of titles, because we can transfer our best Japanese releases and also we will have the third-party titles. This will be the first time for us to launch with enough titles for the US and Europe.

Edge: **Historically, though, being first to the market hasn't always been a successful strategy for Sega, such as with the Mega Drive in Japan. What makes Dreamcast different?**

SI: Right now, the so-called 'next generation' consoles – Saturn, PlayStation and N64 – are all set to be upgraded. We will do it this year. If PlayStation becomes PlayStation 2 next year, and Nintendo upgrades in 2000 or 2001, then it will be a time where all the platforms are changing. We think that the issue of who is earlier or who is late may not be such a big issue.

Edge: **Given the state of the Japanese economy, isn't it true that the Western markets are now more important?**

SI: Our economy is not good, so who will excite the market? We will! Young people say they can't find specific things to buy at Christmas. They need to buy a more attractive new machine. This is it.

Edge: **One of the omissions from Dreamcast's launch was Sega's logo. It's a big step to establish an entirely new brand...**

SI: We've been working on that for 18 months. We commissioned a huge amount of market research and found that the Sega name is still a very strong brand among the core gamesplayers. But for the casual users, it's not a well-known brand name and, in some cases, the Sega brand name creates negative feelings. So this time we decided that the brand name of the platform would be Dreamcast. For the software titles, however, Sega is still the chosen name.

Edge: **Those 'negative feelings' are going to take a lot of overcoming after the failure of Saturn...**

SI: We have lost some credibility among our Saturn users – even in Japan – because they have seen the PlayStation become the dominant force. To recapture their minds we have to convince them that Sega is serious about satisfying its customers. In the past, Sega has never created such a huge conference to send its message to

the world. Up to Dreamcast's launch on November 20, we will be taking all opportunities to send our message to our customers.

Edge: It seems like Sega is being far more open than it has been in the past. Is that a conscious decision?

SI: I have been saying only one thing: think and look at things from the customers' point of view. In the past, I think that Sega has maybe been arrogant. We decided to be far more open and listen to our customers.

Edge: Back on the subject of Saturn, where does the Dreamcast announcement leave the older machine, given that it's still popular in its domestic market?

SI: If there is demand for Saturn hardware then we'll supply it, and we'll also support any software development for it. There are around 150 titles for Saturn yet to be released – we're encouraging the third parties to develop Saturn titles. Some companies are thinking there will be less competition on Saturn. As you know, in the Japanese market there is huge demand for 2D animation. So, probably 3D titles will go to Dreamcast and 2D titles might go to Saturn.

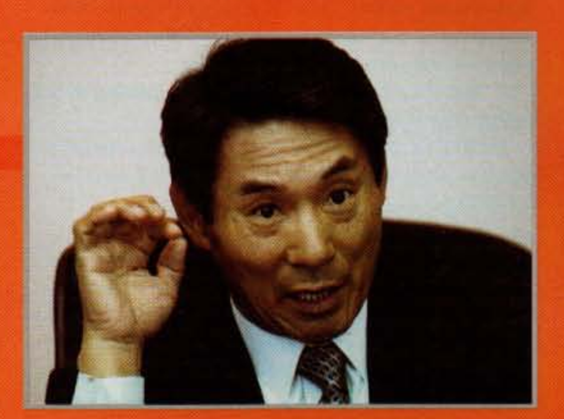
Edge: Another popular genre in Japan is the RPG, a market over which Sony seems to have a stranglehold. Do you think that Dreamcast will be an attractive prospect for developers such as SquareSoft?

SI: The biggest advantage of Dreamcast is to provide almost movie-like graphics for games. So, when you think about role-playing games, it's a kind of movie-like story. In the past, even though the computer graphics behind RPG gameplay were nice, when you went into the game the graphics suddenly changed! But with the performance of Dreamcast, the visuals will be exactly the same throughout. I think this machine is the ideal machine for RPGs.

Edge: As for other game genres, did you opt for Microsoft's operating system mainly to encourage Western developers to produce titles for Dreamcast?

SI: The reason to use Windows CE is simple. We wanted to to have a much wider range of titles for Dreamcast. Some developers which have very good engineering capabilities will not use WinCE. They might write directly to the hardware and get good performance. That's okay. We are very fond of titles which have existed in the past – such as driving and fighting games – but we think that through the much higher performance of the hardware, the boundary of the new generation of titles will be far broader than before.

Edge: What do you mean by 'broader'?



SI: Educational and games categories will merge into one. But who will develop this new generation of titles? Probably traditional developers will not create such titles: newcomers will develop them. For those people, the WinCE development environment offers a favourable situation. Almost 120 developers have already been confirmed, worldwide, and we have delivered around 1,000 development kits.



Edge: How much is Sega spending to evangelise Dreamcast to developers and consumers?

'I HAVE BEEN SAYING ONLY ONE THING: THINK AND LOOK AT THINGS FROM THE CUSTOMERS' POINT OF VIEW. IN THE PAST, I THINK THAT SEGA HAS MAYBE BEEN ARROGANT. WE DECIDED TO BE FAR MORE OPEN AND LISTEN TO OUR CUSTOMERS'

SI: Roughly, worldwide, $500 million. For the development of the hardware, it's cost $50 to $80 million. For the software development, $150 to $200 million, and for the marketing in each territory we will spend $100 million. That's huge numbers. When I was involved in the auto industry, it cost about $200 million to design the engine, chassis – everything. For the tools and dies it cost $200 million, and to launch a new car it costs $200 million. So that means $600 million, the same as to launch this tiny machine! I don't understand... [laughs]



Edge: Including a modem in the console was a brave and positive move, but it's proving hard for some companies to make a profit from online gaming. What makes you think that Dreamcast can break the mould?

SI: There is some consensus of thought on this matter among Japanese developers. Online facilities will be a mandatory requirement for all games development in the very near future. At the same time, we know that we can't make money from the online game business, but we also know that everyone has to add value by developing online gaming. I discussed this issue with lots of top management people from the big publishers. They all said that it will be hard to make a profit from online gaming over the next few years. But still they have to explore the business opportunities.

Edge: Looking at the machine's casing, it seems that the modem is removable...



SI: That's right. Modem performance is always changing, and in the US there might be a kind of high performance cable modem. In that case, the consumer can replace the modem board.

Edge: What is Sega's strategy now regarding its internal software development?

SI: Our arcade people are already working on versions of our best games. Yu Suzuki already told me that he has exceeded the power of Model 3 on Dreamcast, so we can expect a lot of arcade titles to come out for the home. On the other hand, the demand for quality titles from consumers is much higher than before. As you know, the Naomi arcade system is related to Dreamcast, but will be more powerful. So we will carefully select only the arcade titles suitable for conversion.

Edge: There was a hint at the presentation that a certain blue mascot might appear on Dreamcast...

SI: Sonic will remain as the major character for Sega, but we also want to bring lots of new characters forward, and that's one of the major challenges. I also think Sony has a desire to have a strong character...



WARPED SENSIBILITIES

THE CHARISMATIC KENJI ENO AND HIS COMPANY WARP ARE NO STRANGERS TO SUCCESS WITH THE BIG-SELLING CGI-FEST, D. THE DYNAMIC ENO TALKS TO EDGE ABOUT WHY HE'S HAPPY TO JUMP ON THE DREAMCAST BANDWAGON AND BE BEST OF FRIENDS WITH 'POLIMAJIRI-SAN'...



Charismatic, gifted and with a massive personality (both physically and popularly) in his native Japan, Kenji Eno was the first to announce development for Dreamcast. His company Warp is working on a sequel to its million-selling adventure, *D*. Based in the fashionable Aoyama district of Tokyo, nestled among the headquarters of several international record companies, both Warp and Eno have built a huge following among Japanese youth. Edge was treated to a vast demonstration of Eno's fame, as thousands queued outside the Tokyo International Forum in Tokyo's Chiyoda district, hoping for one of the 5,000 free tickets to the *D2* presentation. Once the applause had subsided, Edge seized the opportunity to discover more from the man about *D2*, developing for Dreamcast and the intricacies of snow...

Edge: **Sega has a massive catalogue of potential Dreamcast titles. Warp is a respected company, but it seems odd that *D2* was chosen to be the first game announced.**

Kenji Eno: I was told that Sega will make an announcement on 21 May, so I decided to make mine right after. I'd thought Sega would have shown its games before mine – I only heard one week before that Sega will not show any titles. I asked before the announcement what they intended to do with *D2* on the 21st and they answered 'nothing'. I immediately thought the timing was not good for me. Irimajiri-san told me they wanted to make an announcement to demonstrate the polygon power of the Dreamcast – I like to call him Polimajiri [laughs]. I found the humorous presentation very effective. I've a lot of admiration for him. This time Sega wanted to catch people's attention, and their dreams. Despite the awkward timing of the *D2* announcement, the 11,000 attendance was pretty good.

Edge: **Was it for the *D2* announcement or Eno that they came?**

KE: [Laughs] I don't know. The graphics were good, weren't they?

'THE INUIT PEOPLE HAVE MORE THAN 30 DIFFERENT WORDS TO EXPRESS 'WHITE' – I FELT CHALLENGED BY MAKING A NICE SNOW WORLD WITH LOTS OF SHADES'

Edge: ***D2* has been on the cards for some time now, and was originally planned for the M2. When did you shift to Dreamcast?**

KE: We started last September. At first, we didn't have any hardware so we went to New Zealand to do research, only a few days after deciding to work on Dreamcast. In Japan, September is still summer and it was not the snow season. It would have been unfortunate to not see snow when I'm making a game taking place in it! When we returned, the development kit was at the office and we started work.

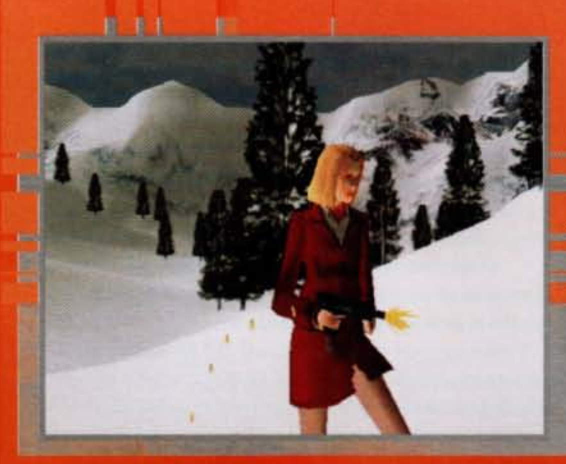
Edge: **Matsushita abandoned M2 in May last year. Why did you wait three months?**

KE: We decided to make a completely new game. *D2* for M2 was an old project. We wanted to make something related to nature – I did not want to use buildings or machines... The Inuit people have more than 30 different words to express 'white' – like 'green' in Japanese. I felt challenged by making a nice snow world with lots of shades.

Edge: **So there's no similarity between the two versions?**

KE: Absolutely none. The game is completely different.

Edge: **Is the development team the same?**



KE: Yes, this team made *D*, the M2 version, and is presently working on this Dreamcast version. We started to work on another RPG game which is presently on stand-by. The total number of Warp staff is around 20. There are between 10 and 15 people working on *D2*.

Edge: **During your presentation there seemed to be a few parallels between *D2* and *Tomb Raider*...**

KE: No, it's different. Because we had to show it very quickly at the announcement, when entering in a combat phase, the scene turned into a cut-scene. I played a lot of *Tomb Raider 2*, although I couldn't reach the end... In *Tomb Raider*, you can't see very far, but in *D2* you can see the distant background in real 3D. However, the fact that you can see an enemy from a few hundred metres away is a problem because you can avoid him. Even if the character appears very close, the game isn't so interesting... We tried a system similar to *Tomb Raider 2* around February time, but that wasn't interesting either, so we gave up and implemented a new system and we're about 20 per cent through that now.

Edge: **What are your aims for the development of *D2*?**

KE: Our objective was to make a game playable by anybody – like *D*. A number of *D*'s players were adults. We want to target the same people with *D* and release a game that's not too difficult. So when you enter a battle phase, the game becomes a shooting game. With the change to a special battle section, *D2* is a kind of action RPG, although we wanted to avoid the loading phase and random encounters. Enemies will be assigned and will appear from different kinds of places – out of the snow, from behind houses, etc. When walking close to them they'll suddenly appear. After a few plays the player will know where they are and remember.

Edge: **Dreamcast has some new features for a console. Do you intend to use the PDA and/or the modem?**

KE: We have a programmer working on it but nothing is decided yet. Maybe we will make a kind of Bulletin Board, enabling players to download messages.

Edge: **How about the PDA?**

KE: You can use it for memory or for displaying some information that another player can't watch. You can carry the PDA with you – and exchange information. The communication capability is high.

Edge: ***D2* seems to be a one-player game. Dreamcast has the ability to be linked directly, like PlayStation. Will you use it?**

KE: It is a one-player game, but we're not planning to use the link.







'A GAME LOOKS BEST WHEN YOU USE TWO OR THREE LIGHT SOURCES AND MAYBE SOME FOG, AND THEN THE NUMBER OF POLYGONS DROPS'

in the future, it may be possible to link different machines which will be good for an RPG type of game. But Warp makes software based on quality. We don't really want to make an 'updated' version.

Edge: Moving on to Dreamcast's technical performance, what sort of power are you using?

KE: We're displaying about 30,000 polygons per frame. We don't know exactly how many we'll display in the end, but Dreamcast is capable of displaying three million polygons per second.

Edge: There has been an expectable amount of cynicism about that figure, given that Dreamcast would then be far more capable than Model 3. Is it a realistic count?

KE: Yes, the machine can display this number of flat-shaded polygons. However, a game looks best when you use two or three light sources and maybe some fog, and then the number of polygons drops. At the beginning, we thought that rather than using 50,000 or 60,000 polygons per frame it was better to use only 20,000 or 30,000 with numerous light sources and effects. Sega's people agreed that the result looked good. At the moment we're using 15,000 polygons for the background and 10,000 for the characters – the demo we showed only had 25,000 polygons per frame.

Edge: How does Dreamcast compare to other platforms?

KE: Saturn and PlayStation display about 3,000 polygons per frame [30fps]. Dreamcast is about ten times this figure, while compared to M2 it's about three to four times more powerful. Having said that, three months ago I looked at some old screen-shots of *D2* on M2 and thought it was pretty good for three-year-old hardware. When the M2 project was cancelled, we thought about releasing *D2* on the N64, but its position wasn't good in Japan. We're happy to release it on Dreamcast because it offers great graphics performance. But honestly, I like the M2 a lot, although I'm not keen on the PlayStation or Saturn. I like the N64 a little bit, though. [Laughs]

Edge: Much has been made of Dreamcast's Yamaha sound chip. With your musical abilities, it must be exciting for you.

KE: For *D2* we want to emphasise the nature aspect of the game, so we are using a lot of sounds. For example, when you enter a room, sounds like fire, or a rocking chair will be played in stereo. The 64bit stereo output is pretty good, which is thanks to the Yamaha chip.

Edge: Another feature of Dreamcast is its use of Windows CE...

KE: I believe Windows CE is a good environment, but we use assembly language and C. Windows CE and its Direct3D will enable lots of people to make games easily, including simple conversions from Windows 95. Sega showed us some demonstrations where they converted a couple of titles from PC in almost one week.

Edge: Sega is promising to support developers better this time around. Have you received final development tools yet?

KE: No, they're still being improved. Their Saturn tools were not so successful. Worse than the N64's maybe... The PlayStation was very successful because of its library and tools, and I believe Sega understood the implications of that. For Dreamcast's graphics, it's possible to use *Graphics Studio Max* and *Lightwave 3D*. Sega's development environment is very friendly – the hardware is still six months away, yet the present version of the tools is already sound.

Edge: Do you exchange development information with Sega?

KE: Yes, I often see Yu Suzuki or Yuji Naka. They are excellent producers and designers. We get on really well.

Edge: It sounds like Warp and Sega have a very close relationship. Does it go further than sharing information?

KE: Absolutely not. There is no financial relationship. We're just good friends – I am on very good terms with Irimajiri-san. I think Sega's people are very nice – I like Sega a lot...

THE OTHER D2






D2 was originally planned for Matsushita's defunct M2 console. These shots from that version reveal a gothic setting, with detailed realtime backdrops. The game has been entirely rewritten for its Dreamcast debut







D2 draws a vast landscape and detailed characters, even at this 20 per cent complete stage. Parallels with PC titles are inevitable

Return of the Mac



Apple Computer's position within the gaming mass market has gradually dwindled. But inspired by the coming changes in interactive entertainment, Apple has the consumer market in its sights once more. Edge examines a company ripe for future success



Steve Jobs has the knack of being in the right place at the right time. He was in a junior role at Atari when it made the breakthroughs that created the arcade videogame; he was at Apple when it popularised home computing with the Apple II, and when the Mac redefined the computing experience so strongly that its template is still followed today. He was at NeXT when the NeXTCube's esoteric system-level network features helped foster the embryonic World Wide Web; and he was at Pixar when 'Toy Story' provided the most dramatic example to date of the power of digital media. Looking at this man's CV is like watching the building blocks of digital communication and entertainment assemble.

Jobs has returned to the helm of Apple Computer, an industrial star he helped launch, but which later fell to earth. The Silicon Valley icon was drowning fast under the weight of a billion-dollar loss in 12 months, but Jobs' bottom-line decisions have given it two quarters of clear profit. Yet while only a curmudgeon would deny that Apple Computer is at least back in business, it does seem painted into a corner, its dependence on its core markets of education and design under increasing pressure from the alliance of PC firms led by Intel and Microsoft. So what does Steve Jobs know about Apple Computer's prospects that the rest of us don't?

The answer lies in the world of digital entertainment, where the diverse fields of computing, telecommunication and broadcasting continue to grow closer together. Whether it's Microsoft's ambitious Web-TV project or Nintendo's 'Pocket Monster' craze, the trend towards a new breed of interactivity defined by collaborative technologies is inescapable. With the case for simpler, cheaper consumer devices (like Sega's new console, which uses the Windows CE OS already popular in handheld organisers. See p68) winning the day over the existing model of high-priced, multi-purpose PCs, Apple seems to be grabbing its chance to be born again.

The future's bright

The product that personifies Apple's take on simpler computing goes on sale in the US in August. iMac is Apple's most aggressive consumer release in years, with space-age industrial design holding a PowerPC 750 processor the firm claims is faster than even the quickest Pentium II on the market. (The

iMac (opposite) heralds the start of a new Apple, where the radical design work of 1996's Twentieth Anniversary Macintosh (above) are married with the blistering processing punch of the firm's more recent G3 machines. The results could yield Apple's most potent Macs ever

Mac gaming on the Web

Mac Gamer's Ledge
http: //www.macledge.com/
The pre-eminent Website for Mac games news, reviews and a superb daily news update on releases, rumours and patches.

Tikkabik
http://www.tikkabik.com/
The other pre-eminent Mac games Website. Now shares news content with the Ledge, but also offers a supplementary news column on 3D games.

To Mac or not to Mac
http://www.gamasutra.com/newswire/industry_analysis/the_score/19980123.htm
The popular games development Webzine gives Ben Calica the chance to examine point-by-point the case for producing Mac games in 1998.

Apple Game Sprockets
http://www.unsupported.com/
The Web address speaks volumes, but development of these ready-made games code nuggets goes on and the technology is worthy of attention.





Pangea Software's *Nanosaur* is a showcase for the developer's 3D graphics engine. The full game is available on the Pangea Website at http://www.realtime.net/~pangea/, with a donation to charity requested as the sole fee





Following the recent launch of iMac, Apple plans to produce a low-cost portable based on the well-received industrial design of eMate (above)

competitive specification also includes 32Mb of RAM, onboard 2D and 3D acceleration and a high-class multi-sync 15-inch monitor.) Yet iMac is to be Apple's entry-level machine, priced at around $1,300 (£1,100 for the anticipated UK release).

More importantly, iMac revives concepts Jobs established at Apple with the release of the original Macintosh in 1984, and led to a brief period of the Mac as the ultimate consumer device, a time which culminated in Broderbund's release of *Myst*. Still the best-selling game ever, the title established CD-ROM as the games format of the future, and its success showed that the Mac is as capable of creating hit games as any platform.

iMac is a return to the vision of computer as an appliance, a device to plug in, switch on and use straight away that could appeal to a mass market better than the ongoing battle of clock speeds that grips the industry, but clouds the real issues of providing computers people enjoy using. Apple's adoption of Intel's Universal Serial Bus connection standard for iMac is in tune with this commoditisation of computing, a radical development that could set the industry alight.

Yet Apple can't escape the fact that it is not some bold startup venture; it has to overcome the prejudices that consumers and the industry have built up through its years of poor decision-making, which led it to a 3.5 per cent share of the world personal computer market in 1997. The implosion has stopped under Jobs, but Apple's renewed attempt to grow again faces obstacles that are as treacherous as the artillery at its disposal is mighty. In this fight, the result could go either way.

The biggest key to the recovery taking place this year has been the PowerPC 750 chip, devised by IBM and Motorola, and part of a processor family colloquially known as G3 (for third generation). Undeniably superior to Intel's dominant Pentium II, G3 combines high data-processing speeds with a reasonable manufacturing cost. Crucially, its low power consumption means the chips can be placed in portable devices.

In the big picture of an Apple resurgence, the existing PowerMac G3 computers, launched to great acclaim in November 1997, are merely an exercise in shoring up Apple's key markets of education and design until the next-generation G4 is ready to ship in 1999. Boasting inherently more powerful 64bit architecture and multi-processing capabilities, G4's suitability for professional designers will enable G3 to be used in its natural preserve of the consumer market, forming the backbone of Apple's new devices, of which iMac looks to be just the first.

While the technology at its disposal gives Apple a good starting point, it has a lot of work to do with its development community and distributors if its entertainment device plans are to succeed. The Mac OS will provide the software for the new range. While the System 7.5 of the mid-90s did little to sustain the Mac's reputation for reliability, any such problems have been overcome with 1997's Mac OS 8, a far more efficient piece of coding. Continued recoding will enable Apple engineers to produce a scaled-down Mac OS for its consumer devices, but they will still need programs to use on them – particularly entertainment and games.

Playing the field

Despite its low profile and a village community culture where everyone seems to know everyone else, the Mac games scene is rather more active than many



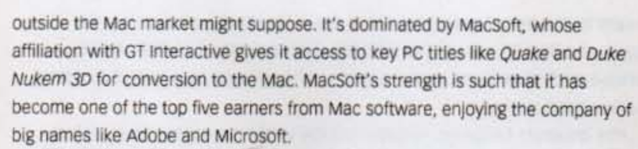








Mac owners are used to PC hand-me-downs such as *Broken Sword*, *Tie Fighter* and *Civilisation* (from top). But occasionally big titles such as *Riven* and *Myst* are created in tandem with the Mac platform



outside the Mac market might suppose. It's dominated by MacSoft, whose affiliation with GT Interactive gives it access to key PC titles like *Quake* and *Duke Nukem 3D* for conversion to the Mac. MacSoft's strength is such that it has become one of the top five earners from Mac software, enjoying the company of big names like Adobe and Microsoft.

Although most Mac titles are PC conversions, Mac customers can choose from a decent spread of quality titles, and a successful one can sell 80,000, according to ex-Apple games evangelist and industry observer **Ben Calica**. Along with another former Apple game guru, Bungie Software's Eric Klein, Calica produced a Web-based report on the case for Mac games development that concluded, '[The Mac market] is free damn money. 40,000 units, a pathetic little title, and you're still talking almost an extra million... The real expense is in launching the damn thing, and if you do concurrent release, most of that wave is already rolling.'

'The Mac market is free damn money. 40,000 units, a pathetic little title, and you're still talking almost an extra million. The real expense is in launching the damn thing, and if you do concurrent release, most of that wave is already rolling'

Ex Apple games evangelist, Ben Calica

One of the reasons behind Calica's assertion is that developers find it easy to write for the Mac. While Apple's attempts at developer-friendly Mac-only technology like Game Sprockets (simply pre-written code for simple gaming tasks, such as joystick input and network gameplay) caught on only patchily, the Mac is a platform PC-friendly enough to read PC CD-ROMs and files automatically. It also accepts technologies like 3Dfx's Voodoo chipset (see p82), and the G3 is far from the first Mac to incorporate 3D chips from ATI Technologies on its motherboard.

Consumer choice

From a technician's perspective, the Mac seems a consummate games machine – almost as easy to set up as a PlayStation but with the power and extendibility of the PC. The Achilles' heel of Mac gaming, and Apple's single biggest threat to its aspirations, is that few consumers are aware of its strengths.

Thanks to Apple's favouring of businessmen over consumers in the mid-1980s, and similarly a decade later under Gil Amelio, it has become the norm for Mac



The PowerMac G3 has encouraged Apple to renew its attempts to lever the firm back into the consumer market where it was once a key player











The Mac games roster displays the platform's 3D prowess, with hits (from top) such as *Actua Soccer*, *Carmageddon* and the powerful MacSoft triumvirate of *Quake*, *Duke Nukem 3D* and *Shadow Warrior*

Future Mac hits

After a quiet start to 1998, the Mac release schedule is starting to look as compelling as last year's bounty. *MDK* is just out, with a first-rate conversion from Shokwave Software, while Mac development stalwart Westlake plans to deliver Mac *Unreal* (below) within weeks of the final PC release. After a strong reception for its *WarCraft* duo, Blizzard will itself handle its *StarCraft* conversion to follow up the PC hit. But perhaps the most telling news is that Core Design, prompted purely by repeated demands from Mac gamers, will offer its first-ever Mac releases with both *Tomb Raider* titles.



PC friendly by design

The Mac's ability to adopt PC traits is one of the reasons for its durability. 1997 saw the launch of the first 3Dfx graphics accelerator for the Mac; produced by TechWorks, the Power3D card gave Mac developers access to 3Dfx's superb Voodoo Graphics system for the first time. Mac hits like *Quake* and flight sim *F/A-18 Hornet* now boast 3Dfx-enhanced graphics modes. Like the PC models, the Power3D is a PCI-based card; only the drivers needed to be changed, and it's possible to use the drivers with a card manufactured for the PC.

The Mac's PC-friendliness has produced a potential nemesis for the platform, however: the Mac is able to emulate the PC through software like *Virtual PC* and *SoftWindows*, allowing the Mac gamer with a fast enough Mac – a G3 is a prerequisite – and enough technical savvy to run most PC games before the publishers have even accepted the case for a Mac conversion. Despite operating purely through software, the emulation these utilities provide goes deep enough for games like *Tomb Raider 2*, not yet Mac-native, to run on the Mac with the same 3Dfx-enhanced graphics as the PC version – the emulators support Voodoo.

Writing on the Website Mac Gamer's Ledge (see p78), MacSoft's **Peter Tamte** pinpointed the threat from emulation. 'It potentially takes owners of high-end Macs out of the market for games. The elimination of some customers from the market may mean that certain Mac games just never get made.'



Who matters in Mac games

MacSoft
The single biggest games publisher for the Mac, MacSoft's budget games line changed beyond recognition when GT Interactive provided funding for Mac conversions of its PC hits. With a reputation for quality conversions, MacSoft has a bright future – and its simple budget games remain top-sellers, too. The firm's Peter Tamte is an eloquent advocate of Mac games as common-sense business practice.

One Stop Direct
GT's PC budget arm in the UK also has responsibility for GT/MacSoft's Mac range. Keen to make its access to full-price titles pay off, and has the clout to make itself heard in retail.

Mark Adams
Perhaps the single most important games developer for the Mac at present, Mark Adams has led the conversions of *Quake*, *Duke Nukem 3D* and other action crossovers from the PC. Currently working on the Mac *Unreal* through new firm Westlake, he should be in a good position to produce games using the superb *Unreal 3D* engine. Also runs a home page for pet bunnies Boggle and Tildy.

Bungie Software
Started as a tiny company with crude but creative Mac games fare – until *Marathon* exploded in gamers' faces. The title that redefined what Mac gaming can mean, *Marathon* and its two sequels helped fund the development of *Myth*, the ambitious 3D tactical fantasy. While publishing partner Eidos concentrated on its PC home ground, Bungie creamed off 30 per cent of *Myth*'s sales by handling the Mac release itself. (The CD is actually a dual-platform implementation.)

MESA
The Mac OS Entertainment Software Association is an alliance of Mac publishers and developers working to convince retailers and Apple itself to support Mac games more effectively. Should grow in influence as its confidence builds.

Mark Gavini
Within Apple's network of company evangelists promoting different areas to the industry, Mark Gavini has the task of articulating the firm's attitude to games. Has yet to turn Steve Jobs' positive words about gamers into real action under the new Apple regime.

Eric Klein
A former Apple staffer now in charge of business development at Bungie, Eric Klein is a potent voice within MESA, along with MacSoft's Peter Tamte.

owners to find games and multimedia in only a few stores, compared to the legions of willing PC and console stockists. Consequently, mail order dealers attract a wildly disproportionate share of purchases in the Mac market compared to other major platforms.

The drawback for games publishers of this imbalance is that most research organisations, such as the ChartTrack group that compiles the UK's best-known games charts, monitor sales through retail rather than mail order; so few Mac sales are actually registered. The perceived lack of interest means that publishers, used to an industry model where retail dominates, cut their production runs.

Mac games publishers, who appreciate the situation they're in, are encouraging buyers to shop at stores. Apple, meanwhile, grasping the reality that many customers will either buy through retail or not at all, has revamped its presence in US stores through the much-publicised CompUSA initiative, with heavily-branded Apple areas in stores quadrupling the Mac's share of sales to 15 per cent.

> 'We are going to get reinvigorated in the consumer market. Over the last several years we've really been pulling out of the consumer market, and we haven't had a product that really fits the price point of today's consumers'
>
> **Mitch Mandich, Apple VP of sales**

Whether the Apple store-within-a-store scheme will be extended into the UK is another matter, but its indisputable impact on Mac software sales and the US-centric hierarchy of Jobs' Apple makes the possibility more likely, especially as more of Jobs' plans unfurl. But at least the US scheme indicates that Apple finally appreciates the right avenues to deliver strong and accessible software to home users.

With the Mac's ready acceptance of industry standards and the projected rise of DVD also set to shake up the digital entertainment market, Apple has its strongest opportunity in years. If it can deliver on iMac's massive potential, and if it can win over enough retailers, the development case will become more convincing than the balance of time and resources Calica admits it is at present. A further crucial point for developers will then come into play: while the likes of Sony, Nintendo, and latterly Microsoft, take a large share of the software publishing markets for their respective platforms, Apple is alone in not competing with third-party companies for gamers' cash. While this has meant fallow patches of releases for customers when times were tough, it also means that for an enterprising firm, ownership of a rejuvenated Mac games market is there for the taking. E



Portable PowerBooks reflect the Apple notion of cool design and superb speed; even the cheapest PowerBook is faster than any Pentium notebook

TESTSCREEN

The definitive monthly assessment of the world's latest videogames

Gameview

Psygnosis' **Ross Thody** sides with Capcom in a *Street Fighter* Vs *Tekken* face-off.



A designer for Psygnosis, **Ross Thody** is credited as the creator of strategy and 3D shoot 'em up hybrid, *G-Police*, for the PlayStation and PC.

Members of the development community are invited to email Gameview submissions to **edge@futurenet.co.uk**

Street Fighter Vs Tekken... Round 1... Fight!

The *Street Fighter* series is better than the *Tekken* series. That's bound to upset a few people, but there is some logic behind this statement. When *Street Fighter 2* was first delivered to the world, looking behind the 1980s' sprites revealed one of the most brilliant games ever devised. *Street Fighter*, much like *Mastermind*, takes minutes to learn, years to master.

With the *Tekken* series, all combos are preset. The linking of moves has been decided and the player is performing a set routine. In *Street Fighter*, using the basic moves as building blocks creates the combos.

Street Fighter offers the player a number of basic moves which can be mastered relatively easily, and it's then up to them how all those moves are executed. Even Capcom doesn't know all the possible combos. The player can create unique fighting styles and techniques, rather than reiterate them.

The courage to attempt this level of playing freedom needs to be acknowledged. If it's established that the game needs that, then making the characters equal in strength, and making sure there are no cheesy moves becomes a difficult task.

Having mastered techniques and basic combos/chains, this newly found wisdom can be used to destroy the opponent, young Grasshopper.

When playing a decent human opponent, the gameplay becomes as brilliantly pure. Some players like to play the defensive, some like the relentless onslaught, but whatever technique the opponent uses, there are a number of counter techniques. When playing someone of equal prowess, the bouts become a strategic overload. Elements of preparing a strategy, predicting the opponent's strategy, executing tactics and counter tactics successfully, hand/eye co-ordination and speed of logical thought processes are all combined and have to be performed within a matter of seconds – or fractions of seconds.

The ability to predict and counter moves exists in *Tekken*, but the massive lists of available moves destroys the purity. *Tekken* has been over complicated with 'features'. To truly predict opponents moves, the opponent must be known, which means all the characters and their individual moves have to be mastered and memorised, and there are a hell of a lot. Some attacks can be countered by luck, but this detracts from the player's skill and ability.

The *Tekken* series are brilliant games with unparalleled levels of quality throughout, from the front-end to the skinned characters, but Capcom's approach to the fighting genre is superior.







Capcom's *Street Fighter* has spawned a seemingly endless string of sequels, firmly retaining its 2D origins. Ross Thody believes its playability has Namco's *Tekken* franchise well and truly beaten

Videogames on the Edge

The games – old, new, whatever – that have grabbed **Edge**'s attention this month



Banjo-Kazooie (Nintendo)
Arriving too late for inclusion in this month's Testscreen section, Rare's gigantic adventure is taking some time to assess. Expect **E**61 to be late!



Gran Turismo (SCEE)
The softening of springs, cross-drilled and grooved brake discs, cold air induction kits: common everyday discussion topics in the office.



Bust-A-Move 2 (Acclaim)
Bubble madness finally hits the N64 and, despite looming deadlines, **Edge** foolishly overestimates its willpower and picks up a joypad for one 'quick' go...



Grand Prix Legends (Papyrus)
Bored with the predictable nature of the current F1 season, **Edge** has been happily reliving the golden F1 days with Papyrus' highly accurate simulation.

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UNREAL



Castles tower within *Unreal*'s hidden canyons. While most levels are set indoors (right), the occasional sidestep outside provides a welcome breath of fresh air



Unreal's monsters seem to come from another game. When moving, they struggle to live up to their awesome environment











Unreal's nine weapons generally feel less weighty than those of *Quake II*, but they're far more imaginative. From the basic continually recharging dispersion pistol (top) through to the compressed energy of the ASMD (middle) to the minigun (bottom), every weapon has its own flavour and uses

Loading Epic's long awaited first-person shooter is among the most impressive experiences a gamer will ever enjoy. The game begins with the player as the sole survivor on a crashed prison vessel, unarmed and close to death. As the ship is explored, every corner reveals a fresh demonstration of *Unreal*'s powerful 3D engine. Noisy firefights behind locked doors and bloodied remains on the floor increase the tension. When players finally emerge, blinking into the sunlight, en route to *Unreal*'s first level proper, all thoughts of its rivals have been banished.

It's clearly intentional. As well as immersing players right away, it seems Epic is suggesting that *Unreal* marks a new beginning. Certainly, as what is effectively a second-generation game for 3D accelerators, *Unreal*, like *Forsaken* and *Incoming*, is one of a new breed. Equally, the level design, pacing, weapons, and AI places it firmly at the pinnacle of its genre. Yet it's a genre that might benefit from a more original approach. As it stands – perhaps fittingly for a project of four years ago – *Unreal* represents the best of a generation.

Describing the gameplay is like quoting from any number of post-*Doom* reviews. Essentially it involves finding more powerful weapons to dispatch ever-tougher opponents, hitting switches and getting from one level to the next while rooting out secrets.

Yet superb games are frequently rehashes of well-worn templates. Like *Tekken 3*, *Quake 2* and *ISS 64*, *Unreal* achieves greatness by doing nearly everything as well as its peers, and doing many things better. While **Edge** longs for a developer to exploit the potential of the first-person shooter, it would be churlish not to recognise that it's the many innovations that advance a genre over the years.

Unreal's biggest single achievement is its AI. Players might battle a lizard-like Skarrj on a walkway, wrong-footing him so that he falls off the edge only to watch him climbing back up. Enemies play cat-and-mouse ducking behind corridors, diving clear of projectiles and occasionally even retreat when outgunned. The AI-controlled deathmatch bouts are better still. Apart from a lack of imagination, they play just like people.

The weapons are equally refreshing. While Epic has faced the perennial problem of topping the shotgun and rocket launcher of *Doom II*, it's explored its own avenues with shuriken hurlers, semi-guided missiles, sniper rifles and toxic bio-guns. Every weapon can be fired in two ways (a couple also offer









Format: **PC**

Publisher: **GT Interactive**

Developer: **Epic Megagames**

Price: **£40**

Release: **Out now**

The flak cannon (above) offers two wide radius attack options, firing either a mass of projectiles or a single explosive shell







The intricate architecture sometimes seems excessive, but the mass of polygons combined with excellent light sourcing provides unparalleled realism. Even traditional lava and water effects (left) get a makeover

combination attacks), equipping the player with nearly 20 offensive options.

Less remarkably, *Unreal* represents another small step from shoot em 'up to exploration game. (Think *Hexen* meets *Tomb Raider*). Its levels are to be savoured rather than blasted through, which will please the cerebral but could frustrate those looking for quick kills. A nice touch is the four-armed native Nali priests, who guide the players to secret areas – provided they're not harmed. This adds an extra element to combat, since the dim-witted Nali frequently blunder into the player's sights.

Undeniably though, it's *Unreal*'s atmosphere that will win most fans. The music is pacey, while the creatures, machinery and even the air have their own distinctive sounds. Equally, a roll call of *Unreal*'s graphic features reads like an advertisement for 3D cards; volumetric lighting, translucency, environment mapping, procedural textures and more.

Unreal's artists have mastered their craft. Scrolling holographic screens hang suspended in control rooms, reflected in the silvered floors. Flares, torches and even gunfire illuminate dingy passages, as players scramble for an exit. Outdoors, when players explore the terrain beneath a vast beached spaceship, the sensation is more 'Starship Troopers' than *Quake II*.

In stark contrast, *Unreal*'s worst flaw is its animation. The monsters are unconvincing, barely flinching when shot at and dancing in thin air beyond ledges. It's not a totally fair comparison (at least its monsters can fall off the edge) yet **Edge** can't help wishing its animations matched their environments.

Another complaint is the limited number of onscreen opponents. While PC shooters from *Doom* onwards have continually got more lifelike, something is undoubtedly being sacrificed here.

Ultimately though, *Unreal* lives up to its somewhat corny name. Through its attention to detail, the little ideas injected into well-worn formats (particularly in multiplayer) and the decision to give away complete level creation tools, Epic has pulled out all the stops in an attempt to make a masterpiece. If it falls just short, it's not because *Unreal* isn't better than all its opponents, but because it's just a little too much like them.

Edge rating:

Eight out of ten



***Unreal* is the first game of its genre to ship with a level editor. Epic claims it's the best yet**

VIGILANTE 8







The alpine ski resort level enables players to start avalanches by wrecklessly attacking the treeline











The vehicles in *Vigilante 8* differ in three main ways – armour, speed and resistance to tracking weapons. They also have unique special weapons







One level features dozens of wrecked planes whose wings make handy ramps (left). The hydroelectric dam level is notable for its electricity discharges and flood pipes, which act as nifty shortcuts (middle right)

Automobile combat games have a long, circuitous history. From *Spy Hunter* to *Carmageddon*, via *Road Blaster*, *Interstate 76* and *Twisted Metal*, game designers have often been lured by the potential of combining 'Mad Max' and the thrill kills of Formula One. Proper cars mean mayhem (one of the mighty *Gran Turismo*'s few faults is its invulnerable cars). Yet no-one has created *the* classic car combat game. *Vigilante 8* is a fair attempt – and an enjoyable one – that promises more than it delivers.

Vigilante 8 began life as *Interstate 76* for the PlayStation. At some point its minimal adventure element was ditched to focus on the action-based combat. Exactly why, isn't clear, and its removal leaves *V8* somewhat bereft of purpose. Each level begins with text informing players of who they'll be fighting and indicating installations that must be protected, such as petrol pumps or key buildings, which seldom feature in the actual encounters. Levels are divided into groups, the final one being a boss level.

One benefit of *Vigilante 8*'s storytelling genesis is the variety of levels on offer. Hydroelectric dams, alpine resorts and old airfields strewn with discarded bombers all serve as arenas. As well as providing a diverse range of driving and fighting conditions, each level boasts specific gameplay elements. Players can ride around in air blimps, start avalanches or shoot down wind turbine blades. Indeed, the fragile nature of objects in *Vigilante 8* is a delight. Almost anything can be blown up or driven through.

The most effective way to damage opponents, though, is to shoot them. The machine gun is the primary weapon, with a variety of more interesting finite ammunition weapons such as cannons, mortars, missiles and mines slotting into hardpoints on the cars' chassis. Less easily deployed are the special moves, which spend multiple rounds of ammunition to release perhaps a death-dealing blow, fire a decoy flare or ignite a missile as an afterburner. Using these convincingly requires a bit of luck, and players may find rapidly discharging their weapons a more successful strategy. No doubt for this reason, wrecked







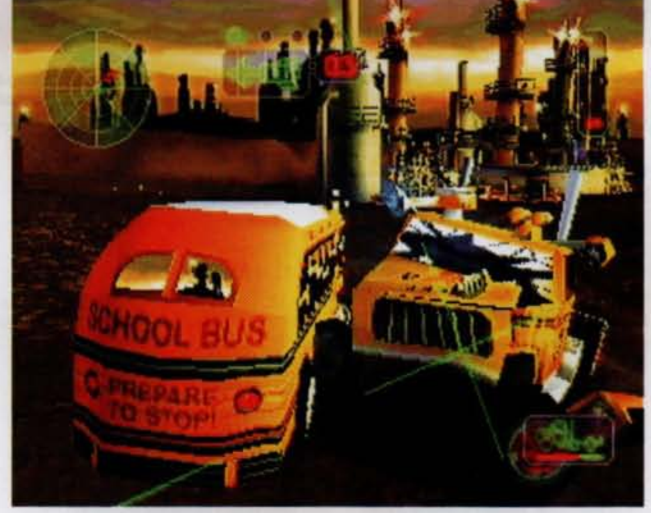
Jumping through flaming hoops might not have any practical benefit, but it looks good (left)



The jumps are often unrealistic, but rarely at the expense of gameplay. The vertigo induced is impressive







Not even kid-carrying school buses are safe in *Vigilante 8* (above). The various stages of damage ensure the player's car rarely looks its best

Format: **PlayStation**

Publisher: **Activision**

Developer: **In-house**

Price: **£45**

Release: **Out now**









The screen can be split either vertically or horizontally for two-player games (above). *V8*'s deathmatches are particularly enjoyable

opponents can be finished off with special moves for extra points.

Range, size and speed of target and angle of attack all affect whether a weapon hits home. This redeems *Vigilante 8* as a game of skill rather than a race to wield big weapons. Outrunning the enemy is very possible, though it can prolong games indefinitely. Here, the varied terrain comes into its own, forcing the player to swerve and dodge obstacles to avoid missiles and mortars. *Vigilante 8* also has a multiplayer mode. This highlights aspects that tend to get sidelined in the single-player game, such as each level's special features, radar jamming and special attacks. Players can also join forces co-operatively against a customised selection of enemies. For the sake of speed, the game limits the number of onscreen opponents, thwarting **Edge**'s attempt to battle nine school buses simultaneously.

Multiplayer is especially successful because the AI is pretty unconvincing in single-player mode. It's not difficult to see why, considering the problems facing the programmers. The average combat game features either *Tekken*-style toe-to-toe attacks (trivially easy in terms of AI) or speedily dispatched enemies like those in *Quake*, who have only limited time to reveal their inadequacies. Here opponents die slowly. They also find themselves in a mass of different situations (different elevations, weapons and speeds, for example). *Vigilante 8*'s protagonists are only really convincing when moving in to attack. After that, anything might happen. An unsatisfying close-combat fracas usually does.

The game lacks polish in other areas. Car handling is adequate, but far from perfect and the graphics sometimes lack finesse. While the environments are impressive, the cars within them can be disappointing, with scaling particularly strange. A smaller irritation is the inability to fire special weapons from the analogue pad.

Vigilante 8 is a competent and interesting game for anyone who enjoys trashing automobiles. But the definitive car combat game would probably exploit the sensation of cars driving at speed, while enabling players to indulge in violence. SCI's *Carmageddon* attempted this, but often degenerated into the close-combat brawls manifest in *Vigilante 8*. As suggested in **Edge**'s recent Revival of the Fittest feature (**E**57), the case for an update of Bally Midway's seminal *Spy Hunter* grows ever stronger.

Edge rating:

Seven out of ten

KOBE BRYANT IN NBA COURTSIDE

Format: **N64**

Publisher: **Nintendo**

Developer: **Left Field Productions**

Price: **$60 (£40)**

Release: **Out now (US)**



While Left Field Productions' title plays a fine game of basketball, some of the slam dunks can leave players wishing for something a little more spectacular









Visually, the game benefits greatly from making use of the N64's medium-res mode





Like most of today's sports games, *Courtside* offers players the opportunity to choose between a variety of camera positions

While a game based on basketball is unlikely to dramatically increase the N64's current sales in the UK, over the Atlantic, where the sport is unimaginably popular, *Kobe Bryant in NBA Courtside* is certain to make a popular addition to the machine's limited range of basketball-inspired software.

Developed by Californian-based Left Field Productions, this is the first title in Nintendo's new sports division which will soon double its membership with a forthcoming baseball game from US outfit Angel Studios.

As its name suggests, this is a fully licensed product – endorsed by Bryant – and as such contains 29 NBA teams with endless pages of current stats to keep the anal-retentive content while those prepared to venture further can create their own players. After finding one of the many cameras on offer that best suits their style, players can engage in the oncourt action with up to three other joypad-yielding individuals or take their chances against the CPU.

Visually, the game runs in medium-res mode and although hardly groundbreaking, each player boasts enough detail to be easily identified by his individual characteristics (facial texture mapping, for example). The animation for all of the moves, too, is impressive even if more flexibility in the players' bodies would have been desirable. The replay option is particularly comprehensive, allowing the action to be re-viewed from any angle as well as from the perspective of any of the players on the court.

The gameplay turns out to be surprisingly good, and once used to the relatively simple controls, most players should be able to perform the vast collection of moves as well as introducing combinations of their own with ease. Each of the players boasts a limited repertoire of signature moves, but some of the slam dunks would have benefited from being a little more extravagant, which would heighten the excitement level to be more like the real NBA. The pace of the players may initially seem sluggish, particularly when put against previous PlayStation basketball offerings, but this quickly becomes less noticeable after a short acclimatisation period.

Nevertheless, *Kobe Bryant in NBA Courtside* remains an accomplished simulation and a decent first title for Nintendo's sports catalogue. Any basketball-loving, N64-owning individual shouldn't fail to investigate what is currently the best example of this sport on Nintendo's machine.

Edge rating:

Seven out of ten



The game's replay mode allows the action to be viewed from any angle

ROAD RASH 3D









As well as trying to fend off attacks from other bikers, players have to contend with normal road users (main)



There are numerous points during the 100 miles of interconnecting road network where the scenery stretches impressively far into the distance

Format: **PlayStation**

Publisher: **EA**

Developer: **In-house**

Price: **£40**

Release: **Out now**







A total of 12 bikes divided into four types and boasting different handling are available for players to buy once they've acquired the right amount of cash

Like 3DO *Need for Speed*, EA's innovative combat racing fest was at its best when running on Trip Hawkins' failed 32bit console. The rest of the *Road Rash* sequels and adaptations, released on a variety of machines since its first appearance on the Mega Drive, failed to do it justice.

While the format is similar, this latest incarnation offers a few additions over its predecessors, the most immediate of which has to be a 3D environment. For the first time in the series' history players are placed in a three dimensional world, where it is possible to take a quick look behind the rider in order to check on upcoming adversaries. Any players not particularly concerned with winning should enjoy *Road Rash 3D*'s other major innovation – as before, races are 'A to B' affairs increasing in length and difficulty as progress is made, but they are sections selected from a 100-mile long network of interconnecting roads. Therefore, other than the police, there is nothing to stop individuals from taking a detour from the designated track to explore the many and varied routes.

This is undoubtedly the game's best feature. The complex arrangement of country lanes, mountain roads, highways and city streets is highly convincing and features some of the best track design ever seen in a racing game. The development team has made use of US Geographical Survey road data, aerial photography and data elevation maps for selected San Francisco Bay Area roads frequented by open-throttle motorbike enthusiasts.

Technically, too, *Road Rash 3D*'s engine is impressive, drawing substantially further than the majority of PlayStation racers. This only serves to further encourage thumb and acceleration button interfacing. Sadly, all this comes at the expense of the frame rate, which although adequate in terms of gameplay, is disappointing in its lack of smoothness.

Yet the game's major problem comes as a result of the developer's use of motion capture for the riders. The time required for the execution of the move to be completed has robbed the immediacy and responsiveness from the fighting found in the title's predecessors. Trying to hit opponents is impractical, requiring precise timing and a significant degree of luck. Furthermore, the player's bike is often over-zealously deflected from a collision with an opponent's vehicle and results in a time-wasting excursion into the scenery. Attempting to take on a group of riders at a time is a particularly frustrating experience.

This is regrettable, as some aspects of *Road Rash 3D* are superbly accomplished. But as a racing combat title it stops short of some of its predecessors, and this alone prevents it from scoring much higher.

Edge rating:

Six out of ten

SENSIBLE SOCCER WORLD CUP '98







Format:	**PC**
Publisher:	**GT Interactive**
Developer:	**Sensible Software**
Price:	**£30**
Release:	**Out now**



Players won't have seen such tiny footballers since *Kick Off*. Of course, soccer always has its bigheads (top right)



***Sensible Soccer*'s wide-angle overhead view reveals more of the pitch than most of its rivals, which suits its frenetic one-touch gameplay**







Players will find more obscure names in their England sides than in the Slovenian world cup squad (above)

Football games are one of the benchmarks by which the progress of videogames are judged. Most of them – poorly executed clones, exploitative licences and off-the-wall novelties – are destined to fall by the wayside. But a small, select few stand out from the morass, bringing a new approach to the genre and reaping the rewards, both critically and financially. *Sensible Soccer* was one of those games.

But a lot has changed since Sensible's halcyon days when the 16bit Amiga was Britain's format of choice. Even then it was considered graphically primitive but, whilst other titles had more visual flair, none could match the way *Sensi* played. The rudimentary graphics were crucial in this, allowing a wide, overhead view of the action, facilitating intuitive tactical play at great speed. So, what has been changed for this 1998 incarnation of *Sensible Soccer*? Very little, it would seem.

The overhead pitch view is retained with some fairly ropey closer angles only available as replays. The men are still small, but are now motion captured and look very convincing from the high vantage point of the match view. The underlying simplicity of the basic controls is there as well, two fire buttons instead of one being the only 'modern' concession. Other than that, play is uncannily reminiscent of earlier *Sensible Soccers*, right down to what must still rank as the finest aftertouch in any football game.

The key to mastering *Sensible* remains the ability to grasp the way players tackle and redirect the ball when they win it. Slide in for the ball and – if the player wins it – a swift shift on the joypad or stick can send it in another direction. This makes possible a myriad lay offs, interceptions, crosses and goals. However, it does depend on the player timing a tackle to perfection, with a huge collection of red and yellow cards the cost of learning this fine art. Step-in tackles and rasher flying ones are also possible, but sliding tackles are by far the most useful in the fast flowing matches. Lobbed shots apart, all other moves – headers, overhead kicks, volleys and so on – are context-sensitive and fluidly animated in the main match view.

Topically, there's a world cup option, although with no licence attached it's called a 'world tournament' and players have lawsuit-safe names like Runaldo and Shoarer, a reminder of less corporate times in videogaming. Indeed, that's something that could be said in general of this new *Sensible Soccer*. It plays in much the same way as it ever did – maddeningly hard at first, gloriously intuitive in time – and it's a testament to *Sensi*'s quality that it's still entertaining. Not the world beater it was, but there's plenty on offer, nonetheless.

Edge rating:

Seven out of ten

KULA WORLD

Format: **PlayStation**

Publisher: **SCEE**

Developer: **Game Design Sweden**

Price: **£35**

Release: **Out now**



By gathering five fruit from across successive levels, a bonus stage is revealed. The player must then touch down on all the blocks to receive extra points









Later stages become fiendishly complex, with the addition of semi-visible segments (bottom)







***Kula World* features a selection of impressive level designs. However, once completed, there is little replay value, which severely limits the life of the game**

After first wandering under **Edge**'s gaze at last year's ECTS in London, the puzzle game *Kula World* (previously *Kula Quest*) has finally made it to PlayStation. In the past, Western entries to the genre have tended to miss the mark (although it has never been a hugely populated game style). Zed Two's *Wetrix* for the N64 (seven out of ten, **E**58) has been the most recent European title of this type. *Kula World* opts for a more original approach, with the player guiding a magnetic ball along and around a series of oblong blocks. To complete a stage, the player collects a number of keys to unlock the exit, while a timer decreases throughout.

In keeping with puzzler traditions, the game jettisons thought of creating a realistic environment – much to its benefit. Moving the ball around the levels soon returns the impression that the addition of inertia to its animation would have spoilt the precise nature of the play system. *Kula World* is all about making well-judged leaps, about making neat progress around the various gangways, jumping the many obstacles. Videogame favourites, such as oscillating spikes and collectable coins join more unusual inclusions like semi-invisible platforms.

Advancing through the many stages, it soon becomes clear that a great deal of planning has gone into the design of *Kula World*. New problems are introduced gradually, so the player learns how to deal with them before the difficulty level is ramped up. In this respect, the game is reminiscent of a good Nintendo title, eschewing any feeling of having been 'cheated'. Mistakes are always the player's fault, not the game's, and much lateral thinking is required for success.

Kula World is highly playable the first time it's attacked. Sadly, once the stages have been mastered, there remains little incentive to re-play through the game. One of the genre's saving graces has always been a strong two-player mode, but Game Design Sweden has failed to properly implement one here. Given the simple – yet adequate – graphics of *Kula World*, it would have been well within the PlayStation's capabilities to duplicate the environment. As things stand, the game is only a partial success, although it's undeniably enjoyable for a limited time.



Initially, the player is left feeling queasy by *Kula World*'s rotating, 360° puzzles. Pass the bucket...

Edge rating:

Six out of ten

BOMBERMAN HERO



In *Hero,* Bomberman's cute, minimalist design is extended to the background scenery. The levels are large, though








Each of the four planets boasts a different visual style, and a different range of baddies. The giant chickens on the first are frankly ridiculous

Format: **N64**

Publisher: **Hudson**

Developer: **In-house**

Price: **¥6,800 (£35)**

Release: **Out now (Japan)**






Flying into the screen (above) provides an amusing diversion once in a while. Beyond that, *Bomberman Hero* is very much platformer-by-numbers material

The *Bomberman* franchise has been a cornerstone of Hudson's output for almost a decade now, but rarely has the company deviated from its standard two recipe menu: 'normal' mode in which the player belts around a variety of small mazes blowing up enemies and collecting gems, and 'battle' mode in which two to four players try to blow each other away in a single screen arena. For this latest venture, however, the familiar design has been completely discarded and replaced with a 3D platformer for just one player. This at first looks like an act of commercial suicide, akin to removing the deathmatch from *Quake*.

Ignore the fact that this is a *Bomberman* title, though, and players are left with a finely-tuned, colourful and at times imaginative, *Super Mario 64* wannabe. Bomberman is still the lead character, of course, and he can still plant, throw or kick bombs at adversaries. But now his game world is a generous series of 'free' roaming environments (there are four planets to get through, each with several sub-sections) created very much with platform conventions in mind. Hence moving platforms, dissolving platforms, platforms which make you jump higher, various objects to collect, for example. There are even sections where Bomberman has to run onto a platform which shoots him through the air, collecting gems all the way – at least the designers haven't just gone out there and cribbed *Mario 64*. No, they have cribbed *Sonic the Hedgehog*, too.

Those expecting a challenge on par with either will be sorely disappointed. Although *Bomberman Hero* is a far from linear affair and does boast a few surprises, it's pretty squarely aimed at younger inexperienced gamers. The baddies (fat robots, big chickens, clowns on beachballs, etc) are easy to dispatch, the end of level bosses are mildly challenging rather than infuriating and the puzzles are kept to a minimum. Plus, the many levels rarely take longer than a few minutes to complete.

There are technical problems, too. It is, for example, very difficult to judge depth, especially when everything onscreen is constructed from the same texture pattern, and there is some incredibly intrusive fogging at times. Less obviously, the character is also less three-dimensionally dynamic than Mario: he moves up, down, left and right quite easily but getting him to do anything else can be exhaustingly fiddly.

But for N64 owners just acquiring a taste for Japanese platformers, *Bomberman Hero* should not be overlooked. Like *Yoshi's Island*, it rewards exploration rather than speed, and like *Goemon* it isn't afraid to deviate from the recipe sometimes and offer something new (there are several 'into the screen' stages where Bomberman gets to wear a jetpack and fly). The levels are nicely put together and offer a few taxing moments without ever completely frustrating the player; plus, the designers have found plenty of diverse uses for Bomberman's eponymous weapon of choice. **Edge** is still waiting for an epoch-making N64 *Bomberman* title, however – but now at least there is hope such a thing is possible.

Edge rating:

Six out of ten

TESTSCREEN ROUND UP

The 3rd Millennium

Cryo has always been a developer keen to toy with conventions, and *The 3rd Millennium* is no exception. Initially, it appears little more than a *Sim City*-style take on empire building, but proves itself far more ambitious and complex. In fact, while relying on the familiar formula of building construction and resource use in the early stages, it's actually a far more intriguing simulation of political decision making that presents the long-term challenge to players. Here is a game where deciding whether or not to boycott religious worship can have wider implications than whether spare land is used for a farm or military base.

This kind of scope is somewhat daunting even for seasoned strategy gamers, but *The 3rd Millennium* uses the natural increase in responsibilities that goes with extra power – success brings promotion to the governor then the president, and only when a country has gained real power is it possible to absorb the responsibilities for neighbouring countries.

Even so, managing so many variables proves anything but straightforward. It's the use of too many sub-screens, dull charts, and non-intuitive controls that poses the main ongoing problems. Making a decision or discovering what the current state of play is is ridiculously awkward. Even when real progress has been made, there's little onscreen acknowledgement of the fact – merely more charts to analyse.

With such pedantic dedication to facts and figures, a week in politics can seem like an absolute age in *The 3rd Millennium*.

Edge rating:

Five out of ten



Format: **PC** Publisher: **Cryo** Developer: **In-house** Price: **£30** Release: **Out now**

Castrol Honda Superbike World Champions



Developed in conjunction with the Castrol Honda Superbike team, Interactive Entertainment's simulation is a fairly comprehensive affair, with seemingly every aspect of this sport taken into account.

A glance at the manual reveals a technical breakdown of Honda's RVF-RC45 (the only motorbike available to players, incidentally) as well as a guide that is designed to help bikers extract the most from their machine as they lap the circuits. Of course, the authenticity also extends to the latter. Enter a championship and race the ten courses set in England, Greece, Indonesia and the US, before crossing the Pacific and trying out the Motegi race track – Honda's home circuit – all of which are faithfully reproduced from their real life counterparts.

Sadly, this attention to realism has come at the price of playability. Of the two views on offer, only the in-bike proves marginally adequate as the rider leans jerkily – and, therefore, unrealistically – into corners. Somehow, the whole thing fails to capture the excitement of a real Superbike season. There are 20-odd other riders on the track at the same time, but these fail to display any kind of collective intelligence, let alone any form of individual AI. The replay system doesn't help either, having the irritating tendency to switch from TV-style broadcasting to the uninvolving chase cam.

On a positive note, the game is remarkably accessible, allowing riding aids such as brake and steering assistance to be switched on and damage to be disabled. But, unfortunately, this is hardly enough to disguise the game's main inherent faults.

Edge rating:

Five out of ten

Format: **PC** Publisher: **Interactive Entertainment** Developer: **In-house** Price: **£30** Release: **Out now**

Hot Shots Golf

Golf purists will no doubt despise SCEI's arcade-inspired club-swinging offering. However, in Japan, where this sport is taken rather seriously, sales of 1.4 million units since its release represent a reasonably strong argument for the fact that, occasionally, for certain activities, a light-hearted approach is preferable. As such, *Hot Shots* manages to achieve the almost impossible: to turn the game of golf into a cutesy and 'fun' sport.

Despite the high degree of accessibility resulting from the simplistic nature of the controls and the clarity of the onscreen information, there is plenty of depth to be found hiding beyond the cute Japanese graphics. Players can perform any of the strokes, as well as add most of the effects seen in detailed golf simulations, with intuitive ease, and the game offers comprehensive yet accessible tutorials covering all major golfing aspects.

The graphics complement the arcade feel of the game competently by renouncing any form of realism in favour of a more cartoony visual approach. That isn't to say that *Hot Shots* boasts little in terms of technological accomplishments: the ability to manipulate the camera in realtime, in any direction for the length of each hole, is particularly impressive, as are some of the replays and the way that the camera pans in an attempt at keeping track of a player's shot.

In addition to the tournament, match play and versus options, players wishing to practise their putting can do so courtesy of the mini-golf mode. Other than these modes, only one of the six courses is initially available, as are two of the ten super-deformed characters but, naturally, all become accessible as the player masters the greens. An interesting addition is the ability to bet on certain shots (the longest drive, nearest distance to the pin) during a four-player match. This introduces yet another competitive aspect to the game.

Despite all of the features, *Hot Shots Golf*'s strength lies primarily in its playability. It may not boast the level of realism of most of its more advanced and solemn counterparts, yet it easily proves to be far more enjoyable than all of them.

Edge rating:

Seven out of ten



Format: **PlayStation** Publisher: **SCEA** Developer: **SCEI** Price: **$35 (£22)** Release: **Out now (USA)**

Wreckin Crew

Telstar's heavily delayed road-rage title is obviously intended to provide PlayStation gamers with the sort of slapstick racing offered to Nintendo owners by the *Mario Kart* games. Both titles place as much emphasis on the collection and use of power-ups as course navigation and, as with *Mario Kart 64*, players get to choose from a selection of characters, each with their own brand of vehicle.

But from there on in, similarities are few and far between. While Nintendo's game delivers unadulterated cartoon fun and coin-op levels of slickness, *Wreckin Crew* proves far less assured. Why provide players with a range of mostly unlikeable characters, for instance? And while the idea of opening up courses to enable the discovery of shortcuts is welcome, it's a move that reduces the pure racing element. Indeed, with the proliferation of speed boosts and other power-ups, races are rarely neck-and-neck affairs.

The tracks themselves are actually well-conceived, if a little garish, with the various themes – including New York, Theme Park and Mediterranean – packing in much incidental as well as interactive scenery, not least with the numerous parked cars. But any impact they may have had is rendered obsolete by a game engine that dispenses with such crucial elements as fluidity, and decent vehicle handling.

***Wreckin Crew* may be fast, furious and loud, but its racing is rarely as entertaining as it should be.**

Edge rating:

Four out of ten



Format: **PlayStation** Publisher: **Telstar** Developer: **Quickdraw** Price: **£40** Release: **Out now**

Deathtrap Dungeon



While, rather inevitably, being something of an anti-climax, *Deathtrap Dungeon* does at least succeed in offering a refreshingly arcade-biased view of the Ian Livingstone's fantasy game world, recalling *Tomb Raider* in many ways without ever feeling too much like a retread. As with the PlayStation game, the emphasis is on puzzle solving (combat proving a touch simplistic), with the twenty-odd levels managing to pack in an extraordinary number of architectural flourishes and well-handled set pieces.

The gameplay mirrors that of the console version, the journey through the dungeon of the title viewed from a third-person perspective. Much work has obviously gone into the use of this remote view, with the camera cinematically dollying, racking or switching angle in key locations.

Surprisingly, such tricks don't disorientate – rather it is the enclosed spaces that tend to cause the problems, with all sense of direction disappearing as the camera attempts to find a vantage point.

Graphically, the PC version obviously offers greater clarity, with both software and accelerated modes piling on the translucency and light-sourcing effects. But the extra resolution does have the unfortunate characteristic of highlighting the best and worst of the game art, as cartoonish (and badly-animated) monsters and texture work occasionally clash with the noir-ish atmosphere.

Although lacking the refinement and sense of newness necessary to seriously challenge the position of Eidos' other blockbuster, *Deathtrap Dungeon* is certainly worthy of attention, though not, as Eidos might suspect, because of the presence of a busty heroine.

Edge rating:

Seven out of ten

Format: **PC** Publisher: **Eidos** Developer: **Asylum** Price: **£40** Release: **Out now**

Ubik

With a storyline based on a short by Philip K Dick, and a game design embracing the ideas at the heart of the new unit-based wargame genre, *Ubik* ought to be a resounding success. On paper, it's hard to see how Cryo could have better implemented this episodic battle between psychically-gifted agents and equally supernaturally blessed corporate spies. Sadly, there are just too many errors of judgement and problems with the execution to secure *Ubik* a place alongside that other Dick adaptation, Westwood's *Blade Runner*.

Crucial to the control of the group of good guys is a mouse-driven point-and-click system that is not unlike those utilised in realtime wargames. But while it's a format that works well in conjunction with an overhead viewpoint, it immediately creates a number of problems here. Combined with sluggish frame rates (on all but the most powerful PC), it's a pain trying to direct characters, and even trying to select a target to fire at proves hit and miss – accidentally clicking on an area mere pixels from an enemy causing the team to run toward rather than fire at the opposition, for instance.

The decision to use selectable static views of locations also brings further complications, with a jarring viewpoint causing disorientation, and anything except the overhead views making it a pain to draw a selection box over several characters at once. Splitting teams into smaller groups for more complex manoeuvres – something that ought to be central to a troop-level game such as this – just adds to these control problems.

This lack of precision and flow in the user interface is all the more disappointing because so many other aspects to *Ubik* positively bristle with potential. Character attributes are balanced just right, with the psionic powers complimenting the weaponry, and the blend of strategic freedom within tightly plotted missions enabling the design to make good use of the background material. That said, even some of the levels prove rather formulaic, with too many generic corridors to run down, and too little in the way of character interaction.

There are enough moments of invention to suggest that the unit-level action wargame may yet provide the next major step forward for the post *Command & Conquer* generation. But while good at providing a taste of things to come, *Ubik* is never together enough to convince as a playable enough experience in its own right.

Edge rating:

Five out of ten



Format: **PC** Publisher: **Cryo** Developer: **In-house** Price: **£40** Release: **Out now**

Thunder Force V



While it may not have quite reached the horizontal shooter's premier league populated by the likes of *Gradius* and *R-Type*, Techno Soft's *Thunder Force* has garnered enough fans over the years to now reach its fifth incarnation. Now, they have to make that tricky decision on how best to incorporate the obligatory '3D' into its structure.

It would seem, however, that the lacklustre effort of *Gradius: Solar Assault* and the dreadful 3D versions of older classics like *Galaxians* and *Xevious* have given *Thunder Force* an 'if it ain't broke, don't fix it' attitude, resulting in the third dimension being relegated to cosmetic use only. This still remains a shooter where everything happens from a side-on perspective and, as such, its appeal and success relies on challenging gamers with years of experience in avoiding screens full of tiny, fast-moving particles. Fortunately, with a setting on anything higher than 'kids' the screen soon becomes completely awash with ludicrous amounts of typically Japanese, stylishly-designed enemies and flak.

The only concession to newcomers is a power-up system that never leaves a player stranded and weaponless after having lost a life.

Although it steals ideas from *Darius* to *Sidearms* and is, like so many Japanese releases, far too short, *Thunder Force*'s 2D appeal to old school gamers is undeniable. But Square's recent *Ehinhander* has shown that there is still a mainstream market for this type of 'no thought required' blaster, if the flash 3D element is handled correctly. Maybe *Thunder Force VI* on Sega's Dreamcast is where the series' future really lies.

Edge rating:

Six out of ten

Format: **Saturn** Publisher: **Tecno Soft** Developer: **In-house** Price: **¥5,800 (£30)** Release: **Out now (Japan)**

Army Men

Army Men amounts to complete vindication for all who questioned the viability of a game based upon plastic model soldiers. The pygmy stature of such a concept has been reflected in a clumsy *Cannon Fodder*-esque shoot 'em-up, featuring ethnic conflict between the Greens and arch enemies, the Tans.

The player is a Green who is able to recollect his single-frame forebears by adopting 'classic' kneeling, prone and firing positions. Running about large war-torn, and talent-free maps, opportunities abound to collect extra weapons, medi-packs and power-ups, while simultaneously battling the differently-pigmented foe and the awkward control system.

Play is conducted via linear missions that offer little innovation or strategic choice. The player plods from way point to way point before eliminating the target in some of the most lacklustre of set-pieces. The 'action' takes place over poorly drawn landscapes bereft of imagination, aesthetic appeal and hope. The sprite-based graphics, anaemically denied sufficient animation, totter around in a world lacking in detail.

The CPU foe are sticklers for orders: they rigidly man their posts and, incapable of initiative, mechanically patrol routes and wait for the player to find his range. But the killing blow is the missing-in-action 'save' option. The appallingly limited resolution means many foes snipe from off-screen. Combined with the ungainly controls, the player ends up staring into the 'mission failure' screen with tedious regularity.

Pep-ups like toting a bazooka, manning a plastic tank, or issuing basic commands to a squad of fellow Greens can lift play beyond the attritional, but they can't divert attention from the game's running sore flaws for long.

Edge rating:

Four out of ten



Format: **PC** Publisher: **Ubi Soft** Developer: **Studio 3DO** Price: **£30** Release: **Out now**

Wonder 3: Arcade Gears

Bastion of a golden age in 2D gaming and revered by hardcore gamers, it's surprising that Capcom has taken its time to join the retro-gaming throng. The relative obscurity of the titles included on this third-party Saturn and PlayStation compilation is perhaps a sign that the company is saving the best of its back catalogue for its own retro cash-in later in the year.

This little known coin-op first appeared together in Japan over six years ago, sinking ungracefully at a time when side-scrolling action games were gradually being ousted in favour of beat 'em ups. But, particularly for lovers of the original Capcom style, there is much to enjoy here – and especially because there are three very different game styles included.

Roosters follows the well-used template of previous cute and colourful Capcom platformers like *Ghouls 'n' Ghosts* and *Willow*, offering detailed and colourful backdrops and character designs, that still look fresh by today's standards. Similarly, the shoot 'em up mould of *Chariot* aspires to the same audio and visual standards, even sharing character graphics. But, as with many arcade games that rely upon visual, rather than gameplay innovation, this brace from Capcom's past are undermined by fairly typical and somewhat dated gameplay. A lack of levels in both doesn't bode well for longevity, either.

Ironically, *Don't Pull* – the least Capcom-like game of the trio – is the most entertaining. Capitalising on tile-based puzzle elements pioneered by the *Bomberman* series, this ultra cute affair may lack the visual extravagance of its handsome stablemates, but it delivers some typically engaging gameplay embellished with the kind quirky visual touches synonymous with Capcom.

With the Saturn and PlayStation currently monopolising the burgeoning retro gaming scene, this release will provide ample entertainment during the wait for Capcom's reanimated gilt-edged classics due later in the year.

Edge rating:

Seven out of ten







Format: **PlayStation, Saturn** Publisher: **Capcom** Developer: **In-house** Price: **¥5,800 (£30)** Release: **Out now (Japan)**

Forsaken 64



While *Forsaken*'s finest outing was indisputably the 3Dfx networkable PC version, Iguana UK have worked wonders with its N64 edition. Running on a console that is fast garnering a reputation for being less than forgiving with programmers, *Forsaken* is the first game to create a serious 'real world' environment on the N64, light it properly, and not leave it feeling like a compromised PC port.

Along with the sumptuous lighting effects – laser bolts that light up the *Descent*-like tunnels as they fly, dazzling explosions erupting from the darkness – *Forsaken 64*'s main claim to PlayStation technical superiority is its four-player mode. Running in the same two-by-two window split as *Mario Kart*, *Diddy Kong et al*, the multiplayer mode is astonishingly smooth, even when in close-fought four-way dogfights.

Unfortunately, as *Extreme G*, Acclaim's other futuristic N64 release proved, perfecting a multiplayer engine is not the same as perfecting the way it plays. Too often, multiplayer *Forsaken* turns into an arduous search for people to shoot at, followed by a few seconds of a confusing and unconvincing fight to the death.

As with the PlayStation and PC, then, *Forsaken*'s strength is in its single-player game. The N64-specific levels, multiple route system similar to *Starfox*, and pleasing overall difficulty should go some way to calming the nerves of N64 owners worried about the apparent dearth of competent third party releases. With luck, programming of this calibre can become an expectation for all N64 titles developed across multiple formats.

Edge rating:

Eight out of ten

Format: **N64** Publisher: **Acclaim** Developer: **Iguana UK** Price: **£60** Release: **Out now**

FIFA World Cup '98

Given the success of its predecessor, it was perhaps inevitable that *World Cup '98* would be a polished, visually accomplished but, above all, 'familiar' footballing experience.

In practice, though, *World Cup '98* is faster, with play somehow less measured than its forebear. After receiving many requests to increase the speed of its FIFA titles, EA has included the option to alter the pace of matches on a sliding scale. On its highest setting, this ensures matches are played in a manner that Nolan Bushnell would find strangely familiar but, as the song goes, the public gets what the public wants...

Indeed, EA appear to have spent the (notably short) period of time between launches addressing criticisms of *Road to World Cup '98*. It's perhaps its tweaking of player AI that **Edge** finds most amusing. A common moan of *RTWC '98* was its players' propensity for running balls near touchlines out of play. Now, players must move 'around' the ball until they reach a position where they can proceed without conceding a throw-in or corner.

Presentation is slick, and its execution a work of consummate professionalism. Des Lynam's intros and John Motson's opening asides are given extra credibility by superb pre-match sequences – players warming up and fidgeting as strains of national anthems can be heard. Where fluent and comfortably accomplished incidental detail is concerned, *WC '98* is almost comparable to your average home-grown Nintendo release.

Ultimately, *WC '98*'s basic core of gameplay remains unchanged. For *RTWC '98* owners, it's a purchase for the completist or the extravagant; for the uninitiated few, an opportunity to see a commercially evergreen franchise in rare form.

Edge rating:

Seven out of ten



Format: **PC** Publisher: **EA** Developer: **In-house** Price: **£30** Release: **Out now**

World League Soccer '98

Considering its developer's experience in the field of videogaming football, *World League Soccer*'s pedigree is commendable. And on paper its features list is certainly ambitious: from genre mainstays such as one-two passes, through balls and unlikely volleys, to an impressive roster of selectable teams and leagues, it more than fulfils the basic requirements expected of modern football games. Thankfully, once on the pitch, *WLS '98* also proves one of the more playable examples of the current polygonal World Cup contenders, with a highly accomplished two-player mode (up to four players via a Multitap in the PS version).

Due to its complexity, the control system is initially awkward and some players may experience a few minutes of frustrating play as they get to grips with the vast array of possible moves. It is very detailed, though, and, once mastered, individuals should find its passing system can be used to craft refreshingly intricate play, with one touch passes and the comprehensive heading possibilities rapidly becoming second nature.

There are, however, a couple of minor quibbles. Gamers are not given complete freedom over the ability to switch control between players, and this can occasionally limit the variety of defensive play.

Also, many formations lead to a concentration of players in the centre of the park. This allows canny individuals to perform largely unopposed runs along either touchline, before making a cross into the box. However, this is true of real life football and there is the option of customising every aspect of the team's playing tactics including the ability to completely restructure the team's formation – it's simply a case of selecting the number of forwards, midfielders and defenders and placing them in the manner that best suits the player.

Nevertheless, in a market where Konami and EA respectively brandish considerable creative and commercial clout, Silicon Dreams' unlicensed effort is up there with the best.

Edge rating:

Eight out of ten



Format: **PC (version tested), PlayStation, Saturn** Publisher: **Eidos** Developer: **Silicon Dreams** Price: **£30** Release: **Out now**

SOUL CALIBUR

NAMCO RE-ENTERS THE WEAPON-BASED COMBAT ARENA WITH SOUL EDGE 2

Developer: Namco
Release: TBA
Origin: Japan




Having appeared in Japanese arcades in 1994, *Tekken* represented something of a departure for Namco, whose previous efforts remained rooted in the racing and shoot 'em up departments. Although an unquestionably fine beat 'em up, *Tekken* nevertheless followed in the generic fighting steps of other previous offerings, its control system proving the only real revolutionary concept.

Rather than immediately celebrate its first beat 'em up success with a hastily rehashed sequel, Namco tried its hand at a relatively unused slant on this ageing genre by introducing *Soul Edge* (*Soul Blade* in the UK) where the use of weapons during the bouts is de rigueur, with contestants facing each other in a series of impressively detailed 3D arenas. After a couple of *Tekken* sequels, the company has decided the time has come to update its slash 'em up.

Soul Calibur then, is Namco's latest arcade offering. Running on System 12, the game has







Straightforward joystick and button combinations enable a variety of defensive moves



Unlike previous fighting games where the action is limited to a restrictive 2D plain with 3D backgrounds, by tapping and holding the joystick players can get their character to move around the arena as a method of trying to get around their enemy

a guard and kick option as well as horizontal and vertical weapon attacks. In traditional beat 'em up fashion, combining joystick instructions with button tapping allows a variety of offensive and defensive moves. However, unlike previous 3D fighting titles, players have the freedom to run around within the confinements of the arenas in an attempt to out-wit their adversary.

Three new characters have joined the original line up: Kilik, a master of the secret Chinese Ling-Sheng su Style Rod art of death; Voldo the Italian, who developed his own fighting style after his parents died in a war; and Athens-born Sophita Alexandra whose country formed part of the Ottoman Empire at the time, which would explain her short sword and shield obsession.

Soul Edge proved particularly popular in Asia and by not straying too far from the original concept, Namco should ensure a similar performance for this sequel.















The new contestants have retained the overall look of their *Soul Edge* predecessors



Some of the characters' many special moves are impressive, and are usually accompanied by extravagant visual effects. The quality of the graphics is remarkable, but a faithful PlayStation conversion shouldn't be impossible after the stunning *Tekken 3*

VIRTUA STRIKER 2 '98

REALISING THE LUCRATIVE POTENTIAL OF THE WORLD CUP, SEGA UPDATES ITS POPULAR TITLE

Developer: Sega
Release: Out now (Jap)
Origin: Japan







The replay mode offers a large selection of useful and dramatic angles

Although *Virtua Striker 2* has already enjoyed a release last year, Sega has decided to reprogram the entire game so as to get it running on the latest version of its Model 3 board, just in time for the forthcoming World Cup.

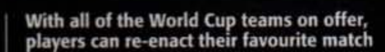
The increase in processing power has not resulted in a substantial leap in graphical quality, with the visuals remaining surprisingly close to *VS2*. The first noticeable difference is the replacement of certain teams in order to reflect the 24 international squads that have actually qualified for this year's tournament. However, this is not an official game, and Sega's only license deals just cover the Japanese team's uniforms and the official ball.

Once into the game, the other alterations become apparent. The number of formations has increased from five to seven, and it's now also easier to switch between offensive and defensive play. Furthermore, goalkeepers can now pass the ball once it's been caught and when taking a free kick players are able to choose one of several play options, maximising their chance of scoring. Also, the replay angles have been tweaked and more statistics are displayed during half-time and once the final whistle has been blown.

Although there are countless console football titles currently flooding the market, *Virtua Striker 2 '98* remains one of the relatively few decent examples of soccer to hit arcades in recent times.











With all of the World Cup teams on offer, players can re-enact their favourite match





Although plentiful on consoles, arcade football titles are becoming a sparse commodity

As with previous Sega football offerings, the animation in this 1998 edition of *Virtua Striker 2* is remarkably realistic and has gameplay to match



Toobin'

A simple, involving, yet *cheerful* arcade game, *Toobin'* is revered for its increasingly rare gameplay qualities



Solo players get to race alongside a weak CPU-controlled opponent







***Toobin'*s course design is excellent, catering for both those who wish to clear courses, and the more dedicated gamer attempting to accrue high scores**

While hardly the most influential of arcade releases, Atari's *Toobin'* is nonetheless regarded with considerable affection by many veteran gamers. Simple in terms of both design and execution, *Toobin'* is an example of Atari at its best. Challenging as a one-player game and surprisingly compulsive in its head-to-head mode, it's a title that begs a 90s update.

With a number of vertically-scrolling courses to negotiate, *Toobin'* invites players to travel on inflatable tubes through a number of different areas – such as forest streams, polar rivers and jungle waters. Each, naturally, possesses an individual theme and indigenous hazards. These can either be avoided or attacked with collectable Coke™ cans. Passing through gates and collecting treasure leads to scoring bonuses and, in true old skool tradition, these points don't make prizes, but represent a total by which a player judges their performance.

Home conversions of *Toobin'* were, lamentably, almost universally poor and have long since been deleted. PC and Mac owners, however, will be delighted to discover that *Toobin'* is available for the increasingly essential MAME.

Publisher: Atari	1988	No 27
Developer: In-house	Arcade	

Microprose Soccer

Like John Ritman's *Match Day*, Sensible's *Microprose Soccer* created a blueprint still evident in modern football titles



It may look primitive, but *Soccer*'s contribution to its genre is huge

EA's *FIFA* titles would no doubt reap greater column inches in a history of the videogame industry, yet Sensible Software's *Microprose Soccer* would merit far more than a brief footnote. Predecessor to Amiga favourite *Sensible Soccer*, this first foray into the football genre for John Hare's development team was a fast-paced, stylised adaptation of its real life subject matter.

Gaming newcomers 'spoilt' by the likes of *FIFA* and Konami's *ISS* would be horrified by *Microprose Soccer*'s lack of to-feet passing – the ball is kicked in accordance to the direction a player is facing instead – its unpredictable goalkeepers and pinball-like goalmouth scrambles. Yet *Microprose Soccer*, in its time, was the undisputed favourite in a crowded genre. For those wishing to see just why, **Edge** would recommend using the superb Power 64 emulator.

If only the latest *Sensible Soccer World Cup '98* (see p93) had completed the trilogy with a similar level of accomplishment, it would have made Sensible Software the creators of definitive footballing titles for three hardware eras – an incredible feat.



Publisher: Microprose	1985	No 28
Developer: Sensible Software	C64	

DEVELOP

Videogame creation under the microscope

Considering the bigger picture

Since the early days of the PC, it has always been necessary to purchase a separate monitor for the machine, rather than simply using a normal television as consoles do. Initially, these monitors were little different from televisions internally, merely lacking the tuner necessary to pick up broadcast signals. As the necessity to cram more information onto a PC screen grew, monitors became much more sophisticated, and capable of displaying images at far higher resolutions than a standard television (while televisions are limited to a maximum resolution of 768x576, monitors now commonly work at 1,600x1,200 and above).

Another problem with televisions is that the image is interlaced – for each frame, only half of the horizontal lines are shown, with the result that the picture appears to contain 576 lines, while in fact only 288 are being displayed at any one time. Since the phosphor coating on television screens is designed to blur the image significantly, this is normally not noticeable. However, if the detailed graphics used in games are displayed, the interlacing effect can be very obvious, particularly if thin horizontal lines are present, as these will flicker (an effect which can be observed on the menu screen presented on the PlayStation when no disc is present).

Even out of these 288 lines, a large number are normally lost due to the 'overscan' effect (where some display lines are off the top and bottom of the screen, and therefore cannot be used), and the NTSC standard used in the US and Japan fares even worse, with only 480 lines being used in total!

Until recently, these restrictions have not been a major problem for console manufacturers, as processor power and memory typically limited games to resolutions of around 320x256 or 640x480. With more powerful consoles like the Nintendo 64 and PlayStation, however, it has become apparent that these limitations are starting to cause problems, especially as PC games now often run in resolutions of 800x600 and above. Since consoles cannot easily move to a dedicated monitor system like the PC without dramatically increasing the price of the machine, manufacturers and developers are having to invent increasingly clever methods to increase the apparent resolution of the display, without actually increasing it.

One such technique is to rely on the same interlacing system normal television uses to increase the apparent resolution by sending two separate 'frames', each containing half of the lines in the image. This is the method used by the PlayStation's hi-resolution mode, but the results can flicker badly, and this mode imposes a serious processor overhead, making it difficult to use in games. However, the hi-resolution mode has been used successfully in *Gran Turismo*, albeit at the cost of some of the nicer graphic effects such as lighting, simplified backgrounds and the lack of other cars on the track.

In the future, interlacing may be a more viable technique, as Hitachi has just announced a television which stores the interlaced frames and displays them simultaneously, producing a high resolution display without any flicker. Whether, with a projected price tag of £1,500 this idea will take off remains to be seen but, if so, it could mean the next generation of console titles will all use interlacing.




Anti-aliasing can produce a smoother image (right), but at the expense of processing power and resolution

Another technique, utilised by the N64, is to anti-alias the image, by taking a high-resolution picture and combining the colours of adjacent pixels to produce a smoother, lower resolution version. This can give the illusion of a higher res without actually requiring the physical resolution to do it. Unfortunately, this technique tends to blur detailed images and is very slow to perform without custom hardware.

While these techniques all use the standard television resolution, and merely make it look more detailed, the arrival of HDTV (High Definition Television) may enable consoles to display images at up to twice the current resolution. Indeed, the Nintendo 64 is rumoured to support some HDTV modes. HDTV may bring consoles back into line with current PC resolutions, and are likely to surpass many PC displays in terms of clarity, simply because television screens tend to be bigger than normal PC monitors (20 to 22-inch is common, as opposed to 15 to 17-inch for PC displays). The question remains whether console manufacturers will switch to supporting only HDTV (and thereby substantially cut their target market), or attempt to find methods of supporting normal televisions as well as newer models.

Places to visit:

Hitachi http://www.hitachi.com/
HDTV Headquarters http://astro.ocis.temple.edu/~sblick/index.htm
HDTV online briefing http://www.current.org/atv1.html
Ion Storm, developer of *Dominion* http://www.ionstorm.com/indexnt.html/



Ion Storm's soon-to-be-released realtime strategy sim *Dominion*, will at least be visually impressive. It can run in resolutions from 640x480 to a high 1,024x768

Gallery

The art of the videogame



Warp's *D2* is the first title to be announced for Dreamcast. The gap between ingame footage and renders such as these has narrowed considerably, thanks to Sega's new hardware. However, the *D2* introductory sequence is surprisingly watchable, blending well with the game's early stages. Heroine Laura survives a terrorist attack on a plane that subsequently crashes, only to confront some sinister fiends...





Reading based startup, Infomedia, supplied these images from *Project Oblivion*, the working title for its debut RPG game. Citing influences such as *Riven*, the Infomedia team is designing *Project Oblivion* for the PC with a view to a possible console version later on. The 'Blade Runner'-esque images promise much as the player is led through the industrial landscape with small foreign craft buzzing overhead.

Images modelled, animated and rendered by lead artist **Ian Clinch** at Infomedia using *3D Studio* and *Soft Image*

When Blizzard decided to create three distinct races for *StarCraft*, it committed itself to more than just a few extra weeks of game testing. The burden also rested with its artists to conjure up alien beings which looked the way they played. The result is an area in which *Starcraft* definitely excels. The marines might be standard issue 'Aliens' fodder, but the swarming Zerglings and the regal Protoss are imaginative creations, and wear their personalities on their sleeves. Heavy use of FMV within the game makes the labour more than an exercise in vanity.

Images rendered at Blizzard Studios using *3D Studio Max*











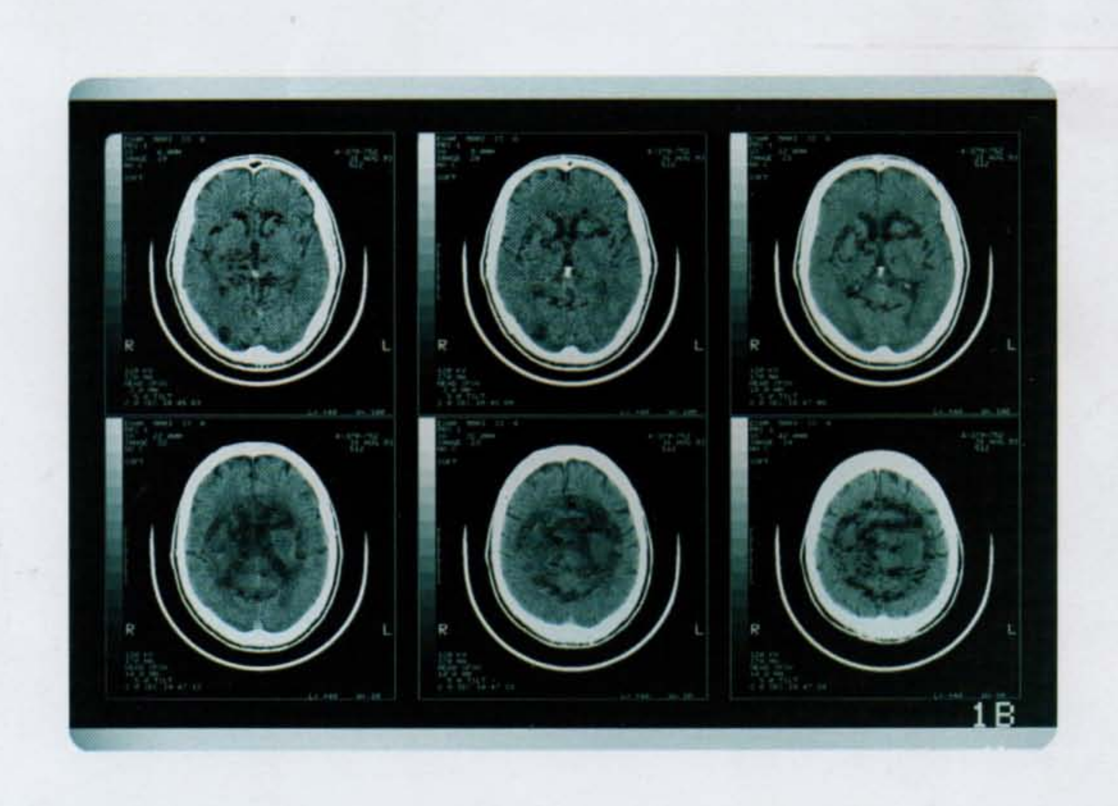
MELDING CONVINCING CHARACTER ANIMATION WITH FLUID, INTUITIVE GAMEPLAY IS PERHAPS THE TOUGHEST CHALLENGE FACED BY VIDEOGAME DESIGNERS TODAY. EVER SINCE THE FIRST TANTALISING GLIMPSES OF REALISTIC MOVEMENT WERE OFFERED BY 8BIT TITLES SUCH AS *IMPOSSIBLE MISSION*, ANIMATION HAS BECOME INCREASINGLY VISUALLY SOPHISTICATED – OFTEN AT THE EXPENSE OF GAMEPLAY.

NEXT ISSUE, **EDGE** INVESTIGATES THIS MUCH NEGLECTED ART.

ISSUE SIXTY-ONE

ON SALE JULY 17




1B



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